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ENVIRONMENTAL PROTECTION AGENCY

■

INORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

Interim Effluent Limitations and Guidelines, and Proposed Performance and Pretreatment Standards

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS

[FRL 375-6]

PART 415—INORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

Interim Final Rule Making

Notice is hereby given that effluent limitations and guidelines for existing sources set forth in interim final form below are promulgated by the Environmental Protection Agency (EPA). On March 12, 1974, EPA promulgated a regulation adding Part 415 to Title 40 of the Code of Federal Regulations (39 FR 9612). That regulation with subsequent amendments established effluent limitations and guidelines for existing sources and standards of performance and pretreatment standards for new sources for the inorganic chemicals manufacturing point source category. The regulation set forth below will amend 40 CFR Part 415—inorganic chemicals manufacturing point source category by adding effluent limitations and guidelines for point sources other than publicly owned treatment works, which require the application of the best practicable control technology currently available for existing sources for the aluminum fluoride production subcategory (Subpart AG), ammonium chloride production subcategory (Subpart X), the borax production subcategory (Subpart AA), the boric acid production subcategory (Subpart AB), the bromine production subcategory (Subpart AC), the calcium carbonate production subcategory (Subpart AD), the calcium hydroxide production subcategory (Subpart AE), the carbon monoxide and byproduct hydrogen produduction subcategory (Subpart AG), the chrome pigments production subcategory (Subpart AH), the chromic acid production subcategory (Subpart AI), the copper sulfate production subcategory (Subpart AJ), the ferric chloride production subcategory (Subpart AL), the fluorine production subcategory (Subpart AN), the hydrogen production subcategory (Subpart AO), the hydrogen cyanide production subcategory (Subpart AP), the iodine production subcategory (Subpart AQ), the lead monoxide production subcategory (Subpart AR), the lithium carbonate production subcategory (Subpart AS), the nickel sulfate production subcategory (Subpart AU), the oxygen and nitrogen production subcategory (Subpart AW), the potassium chloride production subcategory (Subpart AX), the potassium iodide production subcategory (Subpart AY), the silver nitrate production subcategory (Subpart BA), the sodium fluoride production subcategory (Subpart BC), the sodium silicofluoride production subcategory (Subpart BF), the stannic oxide production subcategory (Subpart BH), the zinc sulfate production subcategory (Subpart BK) pursuant to sections 301 and 304 (b) and (c), of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311 and 1314 (b) and (c), 86 Stat. 816 et seq.; Pub. L. 92-500) (the Act). Simultaneously, the Agency is publishing in proposed form limitations for existing sources and standards of performance for new point sources and pretreatment standards for existing sources and new sources.

In reviewing the data underlying the regulations for a number of subcategories, the Agency noted certain subcategories for which the data are incomplete, or where the data require further analysis before fully supportable effluent limitations can be derived. Accordingly, in order to promulgate these regulations in a timely fashion, consistent with the applicable court decree, the effluent limitations for the ammonium hydroxide production subcategory (Subpart Y), the barium carbonate production subcategory (Subpart Z), the carbon dioxide production subcategory (Subpart AF), the cuprous oxide production subcategory (Subpart AK), the ferrous sulfate production subcategory (Subpart AM), the manganese sulfate production subcategory (Subpart AT), the strong nitric acid production subcategory (Subpart AV), the potassium permanganate production subcategory (Subpart AZ), the sodium bisulfite production subcategory (Subpart BB), the sodium hydrosoulfide production subcategory (Subpart BD), the sodium hydrosulfite production subcategory (Subpart BE), the sodium thiosulfate production subcategory (Subpart BG), the sulfur dioxide production subcategory (Subpart BI), and the zinc oxide production subcategory (Subpart BJ), are reserved. It is the Agency's intention to review these subcategories promptly and to revise this Part to include regulations covering such subcategories at the earliest possible date.

(a) *Legal authority.* Section 301(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of the Act. Section 301(b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) of the Act.

Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedural innovations, operating methods and other alternatives. The regulation herein sets forth effluent limitations and guidelines, pursuant to sections 301 and 304(b) of the Act, for the aluminum fluoride production subcategory (Subpart W), the ammonium chloride production subcategory (Subpart X), the borax production subcategory (Subpart AA), the boric acid production subcategory (Subpart AB), the bromine production subcategory (Subpart AC), the calcium carbonate production subcategory (Subpart AD), the calcium hydroxide production subcategory (Subpart AE), the carbon monoxide and byproduct hydrogen production subcategory (Subpart AG), the chrome pigments production subcategory (Subpart AH), the chromic acid production subcategory (Subpart AI), the copper sulfate production subcategory (Subpart AJ), the ferric chloride production subcategory (Subpart AL), the fluorine production subcategory (Subpart AN), the hydrogen production subcategory (Subpart AO), the hydrogen cyanide production subcategory (Subpart AP), the iodine production subcategory (Subpart AQ), the lead monoxide production subcategory (Subpart AR), the lithium carbonate production subcategory (Subpart AS), the nickel sulfate production subcategory (Subpart AU), the oxygen and nitrogen production subcategory (Subpart AW), the potassium chloride production subcategory (Subpart AX), the potassium iodide production subcategory (Subpart AY), the silver nitrate production subcategory (Subpart BA), the sodium fluoride production subcategory (Subpart BC), the sodium silicofluoride production subcategory (Subpart BF), the stannic oxide production subcategory (Subpart BH), the zinc sulfate production subcategory (Subpart BK) of the inorganic chemicals manufacturing point source category.

Section 304(c) of the Act requires the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of the Act. The report or "Development Document" referred to below provides, pursuant to section 304(c) of the Act, information on such processes, procedures or operating methods.

Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants. Section 307(c) of the Act requires the Administrator to promulgate pretreatment standards for new sources at the same time that standards of perform-

ance for new sources are promulgated pursuant to section 306. Section 307(b) of the Act requires the establishment of pretreatment standards for pollutants introduced into publicly owned treatment works and 40 CFR Part 128 establishes that the Agency will propose specific pretreatment standards at the time effluent limitations are established for point source discharges. In another section of the FEDERAL REGISTER a regulation is proposed in fulfillment of these requirements.

(b) *Summary and basis of interim final effluent limitations and guidelines for existing sources*—(1) *General methodology.* The effluent limitations and guidelines set forth herein were developed in the following manner. The point source category was first studied for the purpose of determining whether separate limitations are appropriate for different segments within the category. This analysis included a determination of whether differences in raw material used, product produced, manufacturing process employed, age, size, waste water constituents and other factors require development of separate limitations for different segments of the point source category. The raw waste characteristics for each such segment were then identified. This included an analysis of the source, flow and volume of water used in the process employed, the sources of waste and waste waters in the operation and the constituents of all waste water. The constituents of the waste waters which should be subject to effluent limitations were identified.

The control and treatment technologies existing within each segment were identified. This included an identification of each distinct control and treatment technology, including both in-plant and end-of-process technologies, which is existent or capable of being designed for each segment. It also included an identification of, in terms of the amount of constituents and the chemical, physical, and biological characteristics of pollutants, the effluent level resulting from the application of each of the technologies. The problems, limitations and reliability of each treatment and control technology were also identified. In addition, the non-water quality environmental impact, such as the effects of the application of such technologies upon other pollution problems, including air, solid waste, noise and radiation were identified. The energy requirements of each control and treatment technology were determined as well as the cost of the application of such technologies.

The information, as outlined above, was then evaluated in order to determine what levels of technology constitute the "best practicable control technology currently available," "best available technology economically achievable" and the "best available demonstrated control technology, processes, operating methods, or other alternatives." In identifying such technologies, various factors were considered. These included the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, nonwater quality environmental impact (including energy requirements) and other factors.

The data upon which the above analysis was performed included EPA permit applications, EPA sampling and inspections, consultant reports, and industry submissions.

(2) Summary of conclusions with respect to the aluminum fluoride production subcategory (Subpart W), the ammonium chloride production subcategory (Subpart X), the borax production subcategory (Subpart AA), the boric acid production subcategory (Subpart AB), the bromine production subcategory (Subpart AC), the calcium carbonate production subcategory (Subpart AD), the calcium hydroxide production subcategory (Subpart AE), the carbon monoxide and byproduct hydrogen production subcategory (Subpart AG), the chrome pigments production subcategory (Subpart AH), the chromic acid production subcategory (Subpart AI), the copper sulfate production subcategory (Subpart AJ), the ferric chloride production subcategory (Subpart AL), the fluorine production subcategory (Subpart AN), the hydrogen production subcategory (Subpart AO), the hydrogen cyanide production subcategory (Subpart AP), the iodine production subcategory (Subpart AQ), the lead monoxide production subcategory (Subpart AR), the lithium carbonate production subcategory (Subpart AS), the nickel sulfate production subcategory (Subpart AU), the oxygen and nitrogen production subcategory (Subpart AW), the potassium chloride production subcategory (Subpart AX), the potassium iodide production subcategory (Subpart AY), the silver nitrate production subcategory (Subpart BA), the sodium fluoride production subcategory (Subpart BC), the sodium silicofluoride production subcategory (Subpart BF), the stannic oxide production subcategory (Subpart BH), the zinc sulfate production subcategory (Subpart BK) of the inorganic chemicals manufacturing point source category.

(i) *Categorization.* For the purpose of establishing effluent limitations guidelines and standards, the significant inorganic products segment of the inorganic chemicals manufacturing category was divided into forty-one discrete subcategories consistent with the specific chemicals produced. Various other means to group the forty-one chemicals into subcategories were investigated. Factors such as raw waste loads, water requirements, and manufacturing processes do not establish a sound basis for subcategorization because the raw materials used and production processes employed are specific for each chemical. Although certain waste water constituents may be reduced to similar concentrations for selected chemical groupings, the quantities of pollutants discharged based on production volume are different for each chemical because of specific water requirements.

Thus, for the purpose of these regulations, a subcategory was established for each chemical product. This subcategorization scheme simplifies the application of effluent limitations guidelines because inorganic chemical plants vary significantly in terms of product mix. This scheme also reflects differences in the character and treatability of waste streams due to the manufacturing process variables unique to each chemical.

(ii) Origin and characteristics of process waste water pollutants generated by the manufacture of significant inorganic products.

(1) *Aluminum fluoride.* Aluminum fluoride is manufactured by the reaction of hydrated alumina with hydrogen fluoride. The product aluminum fluoride is cooled and conveyed to a storage area for packaging and shipment. Process waste waters result from the use of water scrubbers to entrain air-borne wastes from the chemical reactor and from the loading and packaging area. Also, water is sometimes used for vacuum pump seals. The primary waste water constituents present in the untreated process waste water include fluoride and aluminum compounds.

(2) *Ammonium chloride.* Ammonium chloride may be produced from the reaction of anhydrous ammonia with hydrogen chloride gas, from the recovery of ammonium chloride from waste mother liquors generated by the production of sodium carbonate using the Solvay process, or as a byproduct from other chemical manufacturing processes. The regulations presented herein apply only to the first two manufacturing processes.

No water is used in the ammonia-hydrogen chloride gas process, resulting in the generation of no process waste water pollutants.

In the recovery process from sodium carbonate production wastes, ammonium chloride-containing liquor is first filtered to remove insoluble impurities, then partially evaporated to extract residual ammonia and carbon dioxide. The liquor is then passed through a series of vacuum flash coolers wherein ammonium chloride crystallizes and is recovered by centrifugation. The waste mother liquor is returned to the sodium carbonate plant for recovery of residual ammonia values. All other waste streams from the various purification steps are also returned to the sodium carbonate production process. The only process wastes as a direct result of ammonium chloride recovery include filter aids and ammonia containing barometric condenser water.

(3) *Ammonium hydroxide.* The effluent limitations for this subcategory are being reserved for further consideration.

(4) *Barium carbonate.* The effluent limitations for this subcategory are being reserved for further consideration.

(5) *Borax.* Borax is manufactured by the mining and extraction from borax ore and also by the Trona process.

In the mining and extraction process, impure sodium tetraborate decahydrate is crushed and dissolved in water with

recycled mother liquor. The solution is fed to a thickener wherein insolubles are removed. The borax solution is then passed through crystallizers, and centrifuged to recover solid borax. Contact cooling water, thickener overflow, and washwaters are the process waste streams generated by this process. The wastes primarily consist of insolubles contained in the impure raw material.

In the Trona process, borax-containing brine is passed through a cyclic evaporation crystallization system. The brine is concentrated in triple-effect evaporators. The hot liquor is then cooled, allowing for the crystallization of borax, which is then filtered, purified, dried and packaged. The process waste streams consist of residual brine and depleted liquor which are returned to the brine source.

(6) Boric acid. Boric acid is made by reacting borax and sulfuric acid. The manufacturing process and associated raw waste load vary depending on the source of borax.

When mined borax is used as the raw material, the resulting slurry from the borax-sulfuric acid reaction is vacuum filtered to recover solid boric acid which is dissolved in water, filtered, reprecipitated, centrifuged, washed, dried and packaged. Wastes consist of excess boric acid liquor, unrecovered sodium sulfate, filter aids and undissolved impurities from the filtration steps.

Boric acid may also be produced by the Trona process from a liquid—liquid solvent extraction—evaporative crystallization process. The brine is purified and evaporated to dryness. The crystallized boric acid is then centrifuged, dried and packaged. The only wastes from this process are brine impurities which are recycled to the salt water body from which the brine was initially withdrawn.

(7) *Bromine.* Bromine may be produced by the Trona process or by extraction from well brines.

In the Trona process bromine is stripped from a hot liquor stream using chlorine and steam. The product bromine is condensed, distilled and collected as a liquid. The only wastes generated by this production process are residual brine and depleted liquor which are recycled to other manufacturing processes.

When well brines are used as the raw material the production process is similar to the Trona process. The brine stream is extracted by debromination with chlorine and steam. The wastes consist of spent brines which are returned to the salt cavity.

(8) *Calcium carbonate.* Calcium carbonate is produced by similar processes using various raw materials. In one process slaked lime is reacted with carbon dioxide. The slurry is screened and filtered to recover calcium carbonate. Other processes involve reacting various waste streams from the Solvay process used to manufacture sodium carbonate. Many of the wastes present from these processes are attributable to sodium carbonate production and not a direct result of calcium carbonate manufacture. The raw wastes from the various processes generally consist of waste sodium, ammonia, and calcium salts resulting from the numerous filtration and thickening operations.

(9) *Calcium hydroxide.* Calcium hydroxide is produced by the reaction of calcium oxide with water. It is essentially a dry process generating no water-borne wastes.

(10) *Carbon dioxide.* The effluent limitations for this subcategory are being reserved for further consideration.

(11) *Carbon monoxide and byproduct hydrogen.* Methane, air and water vapor are catalytically reacted to form a mixture of carbon monoxide, carbon dioxide and hydrogen. The carbon dioxide is removed by scrubbing with ammonia and the products, carbon monoxide and hydrogen, are separated, purified and compressed. Process waste waters include compression condensates, scrubber wastes and monoethanolamine waste. These wastes generally contain carbon dioxide, oil from compressors and monoethanolamine.

(12) *Chrome pigments and iron blues.* The following pigments are considered in this subcategory: Chrome yellow, chrome orange, zinc yellow, molybdate chrome orange, chrome green, chromic oxide and iron blues. Chrome yellow and chrome orange are impure forms of lead chromate. Molybdate chrome orange is a mixture of lead chromate, lead molybdate and lead sulfate. Chrome green is a mixture of chrome yellow and iron blue. Chromic oxide green and "guignet's" green are anhydrous and hydrated forms of chromic oxide. Zinc yellow contains compounds of zinc, potassium and chrome. Iron blues are produced by the reaction of ferrous sulfate with sodium ferrocyanide in the presence of ammonium sulfate. The process waste waters generated by the manufacture of chrome pigments result from various filtering, washing and drying operations. Process waste waters from a chrome pigment complex will generally contain chromium, lead, zinc, iron, cyanide, dissolved sodium salts and acetates. Other constituents are often present in lesser quantities.

(13) *Chromic acid.* Chromic acid is produced from waste liquors resulting from sodium dichromate manufacture. This waste liquor is reacted with sulfuric acid and the solution is filtered to recover chromic acid. The only waste streams not returned to the sodium dichromate manufacturing process are leaks, spills and wash down waters which contain chromium.

(14) *Copper sulfate.* Copper sulfate may be produced from a pure copper raw material or from an impure copper source.

When a pure raw material is used, copper, sulfuric acid, water and air are introduced into a steam-heated oxidizing tower. The resulting copper sulfate solution is sent to a sedimentation basin and then to a crystallizing tank. The concentrated crystals are centrifuged, separated and dried. All waste streams are recycled to the process.

In the byproduct recovery process, a waste stream from a copper refinery is fed to an oxidizer tank wherein it is reacted with copper shot, steam and air. The resulting solution is concentrated and filtered. The filtrate is crystallized, centrifuged and screened. Product copper sulfate is dried and packaged. Process waste waters consist of spent mother liquors and wash down waters. Copper, nickel and selenium are process waste water pollutants generated by this process.

(15) *Cuprous oxide.* The effluent limitations for this subcategory are being reserved for further consideration.

(16) *Ferric chloride.* Ferric chloride is produced from waste pickle liquor. The pickle liquor is preheated and reacted with iron, chlorine and sometimes hydrochloric acid. The solution is filtered and sold in solution or evaporated to dryness to recover a solid product. Wastes consist of filter sludges and washdown and pump seal waters containing grease and various iron compounds.

(17) *Ferrous sulfate.* The effluent limitations for this subcategory are being reserved for further consideration.

(18) *Fluorine.* Fluorine production is based on the electrolysis of hydrogen fluoride. This electrolysis is either a direct electrolysis of liquid hydrofluoric acid or an electrolysis of fused salts containing potassium acid fluoride.

In the liquid hydrogen fluoride process, fluorine is formed at one electrode and hydrogen gas at the other. The fluorine is compressed and packaged in cylinders. No raw wastes are generated by this process.

In the fused salt process, lithium fluoride, potassium acid fluoride and gaseous hydrogen fluoride are added to a molten salt electrolytic cell. Liberated fluorine gas is filtered and cooled to remove impurities. Process waste water consists of periodic electrolyte discharge from the cell. The primary constituent contained in this waste stream is fluoride.

(19) *Hydrogen.* The production process applicable to this subcategory involves purifying refinery byproduct gas. Crude hydrogen is passed through a catalytic bed and drier to remove oxygen and water. The gas is then passed through gas exchangers to remove nitrogen and other impurities. The hydrogen is cooled, liquefied and packaged. There is no process waste water generated by this process.

(20) *Hydrogen cyanide.* Hydrogen cyanide is manufactured by the Andrussow process and also as a byproduct of acrylonitrile production.

In the Andrussow process natural gas, ammonia and air are catalytically reacted to yield an impure hydrogen cyanide gas stream which is purified to remove nitrites and ammonia. The product hydrogen cyanide is liquefied and stored. The wastes from this process consist of sulfates, ammonia, cyanide and nitrites discharged from the ammonia recovery unit and in various wash waters.

Production as a byproduct of acrylonitrile manufacture involves the catalytic reaction of propylene, ammonia and air. The products are separated and the hydrogen cyanide is purified, compressed and liquefied for the sale. No process

waste waters are generated by this recovery process.

(21) *Iodine.* Iodine is produced from iodide containing brine solutions. The brine is acidified and fed into an extraction unit wherein chlorine is passed through the brine liberating free iodine. The free iodine is stripped from the brine and treated again with chlorine yielding solid iodine. The solution is filtered, treated with sulfuric acid and refiltered. The product is then crushed and packaged for sale. The wastes from this process include spent brine solutions which are returned to the salt cavity from which the brine was initially obtained.

(22) *Lead monoxide.* Lead monoxide is produced by the thermal oxidation of lead. There are no process waste water streams generated by lead monoxide production.

(23) *Lithium carbonate.* Lithium carbonate is produced by the Trona process and from spodumene ore.

Production from spodumene ore involves the reaction of sulfuric acid with the ore. The solution is heated, leached with water and filtered. The solids are redissolved in sulfuric acid, precipitated by pH adjustment and centrifuged. The product lithium carbonate is then washed and dried. Raw wastes consist of the sulfates of calcium, lithium and sodium and ore residues.

In the Trona process, lithium carbonate is recovered from the solid residue resulting from potassium chloride and bromine production. The residue is dissolved in water and sent to a flotation system from which a dilithium sodium phosphate froth is withdrawn, filtered and dried. Sulfuric acid is reacted with this solid, yielding lithium sulfate which is reacted with sodium carbonate. Lithium carbonate is crystallized, centrifuged, dried and packaged. All waste materials are used in other manufacturing processes, such that there is no process waste water discharge.

(24) *Manganese sulfate.* The effluent limitations for this subcategory are being reserved for further consideration.

(25) *Nickel sulfate.* Nickel sulfate is produced from pure nickel or nickel oxide and from impure nickel containing materials.

When pure nickel is used as the raw material, the metal or oxide is digested in sulfuric acid. The solution is then filtered and sold or further processed to yield a solid product. Virtually no process wastes are generated by this process.

If impure raw materials are used, the sulfuric acid reaction solution must be treated with oxidizers to remove impurities. After filtration the product is marketed or converted into a solid product. Raw wastes consist of metal salts, suspended solids and dissolved solids present in the impure nickel raw material. Waste streams result from the use of wet scrubbers, from barometric condensers and from treatment of the raw materials to remove impurities.

(26) *Strong nitric acid.* The effluent limitations for this subcategory are being reserved for further consideration.

(27) *Nitrogen and oxygen.* Nitrogen and oxygen are manufactured by the distillation of liquefied air. Air is compressed, cooled and then separated into nitrogen and oxygen by distillation. The primary process wastes are oil and grease contained in compressor condensates.

(28) *Potassium chloride.* Potassium chloride is produced by the Trona process and by extraction from sylvite ore, which is a potassium chloride-sodium chloride mineral.

In the Trona process a brine solution is partially evaporated to produce a hot, concentrated liquor which is cooled in vacuum crystallizers. Potassium chloride is filtered from the resulting slurry, dried and packaged. The only wastes from this process are depleted brine solutions which are returned to the salt body from which the brine was initially withdrawn.

When sylvite ore is used as the raw material, it is crushed, screened and wet ground in brine solutions. Potassium chloride is separated from the slurry, centrifuged, dried, screened and packaged. The raw wastes consist primarily of sodium chloride and insoluble impurities present in the ore. Process waste waters result from the various separation processes and dewatering operations.

(29) *Potassium iodide.* Potassium iodide is produced by the reaction of potassium hydroxide and iodine. The waterborne wastes include potassium iodide and iodate which are present in washdown waste waters.

(30) *Potassium permanganate.* The effluent limitations for this subcategory are being reserved for further consideration.

(31) *Silver nitrate.* Silver nitrate is produced by dissolving silver in nitric acid. The solution is evaporated yielding a concentrated mother liquor which is sent to a crystallizer. The crystals are centrifuged, washed, dried and packaged. Waste water streams result from the use of wet scrubbers, from product washing and purification operations, and from the evaporators. The major waste water constituents include silver compounds, nitrates and trace metals.

(32) *Sodium bisulfite.* The effluent limitations for this subcategory are being reserved for further consideration.

(33) *Sodium fluoride.* Sodium fluoride may be made by two similar processes. Anhydrous hydrofluoric acid may be reacted with sodium carbonate. The solution is then sent to a vacuum filter to recover product sodium fluoride. Process wastes from this process consist of filtrate, mother liquors, wash down waters and scrubber solutions which are recycled. The mother liquor and wash down waters generally contain sodium carbonate and waste sodium fluoride.

Sodium fluoride may also be produced by the reaction of sodium silicofluoride with sodium hydroxide. The solution is fed to a multi-stage separator, wherein sodium fluoride separates from the soluble sodium silicate. The product sodium fluoride is washed, dried, and packaged. Process waste waters from this process consist of waste liquor containing sodium silicate and sodium fluoride, wet scrubber blowdown and wash waters.

(34) *Sodium hydrosulfide.* The effluent limitations for this subcategory are being reserved for further consideration.

(35) *Sodium hydrosulfite.* The effluent limitations for this subcategory are being reserved for further consideration.

(36) *Sodium silicofluoride.* Sodium silicofluoride is produced by the reaction of fluosilicic acid with sodium chloride from which sodium silicofluoride precipitates. The reaction mixture is settled and the product is separated, washed, dried, classified and packaged. A variation of this process is also used to manufacture sodium silicofluoride. Impure phosphoric acid containing fluorides may be treated with sodium carbonate to precipitate sodium silicofluoride. The remaining steps to recover and prepare the product for sale are the same as those discussed above. Raw wastes from the two processes include the coproducts from the process reaction (hydrochloric acid in the first case and carbon dioxide in the second), excess reactants, impurities in the acids and minor process additives.

(37) *Sodium thiosulfate.* The effluent limitations for this subcategory are being reserved for further consideration.

(38) *Stannic oxide.* Two processes may be used to manufacture stannic oxide. In the "dry process" the metal is thermally reacted with air or oxygen. No process waste waters result from this process.

The second process involves the recovery of tin from scrap materials. The wastes contained in the process waters from this process include suspended solids, oil and grease.

(39) *Sulfur dioxide.* The effluent limitations for this subcategory are being reserved for further consideration.

(40) *Zinc oxide.* The effluent limitations for this subcategory are being reserved for further consideration.

(41) *Zinc sulfate.* Zinc sulfate is produced by reaction of sulfuric acid with crude zinc starting materials such as crude zinc oxide from brass mill fumes, zinc metal residues and zinc carbonate byproduct from sodium hydrosulfite manufacture. The reaction product is filtered, treated to precipitate metals, refiltered, and evaporated to dryness or sold as a solution. Waste materials from this process are all solids except for a small amount of wash water which is recycled.

(iii) *Treatment and control technology.* Waste water treatment and control technologies have been studied for each subcategory of the industry to determine what is (a) the best practicable control technology currently available, (b) the best available technology economically achievable, and (c) the best available demonstrated control technology, processes, operating methods or other alternatives.

The application and performance of various control and treatment technologies to reduce the quantities of pollutants discharged to navigable waters as a result of the production of inorganic chemicals are specific to the inorganic

product manufactured. However, many in-process control measures, as well as end-of-pipe treatment systems, may be generally applied to several product subcategories.

Good in-process control is a significant pollution abatement technique for all products produced in the inorganic chemicals manufacturing industry. Practices such as minimization and containment of spills and leaks, segregation of waste streams, monitoring process waste water, water conservation and reuse, waste water equalization and good housekeeping, process operation and equipment maintenance are necessary to eliminate or reduce the volume of process waste water requiring treatment.

Five chemicals, borax, boric acid, bromine, potassium chloride and lithium carbonate, are produced by the Trona process in which salt brines are withdrawn from a dry lake basin. Saleable chemicals are extracted from the brine solution which is then returned to the brine field. No additional treatment is required for this process.

Several chemicals are manufactured as byproducts from other production processes or recovered from waste streams generated by other operations. No additional waste allowance is provided for these processes if no pollutants are added in the recovery or production processes. Hence, any treatment technologies are applicable to the primary manufacturing operation and no additional abatement systems are required. Such chemical manufacturing processes include ammonium chloride production from sodium carbonate wastes, chromic acid production in dichromate facilities, ferric chloride production from waste pickle liquor and ferrous sulfate recovery from titanium dioxide production.

Some chemical manufacturing processes are essentially dry, requiring no additional effluent treatment, because the existing technology averts the discharge of process waste water pollutants under normal operating conditions. These include calcium hydroxide production, lead monoxide production, stannic oxide production from tin metal and zinc sulfate production.

Nickel sulfate production from pure raw materials and sodium fluoride production generate no effluent requiring treatment by virtue of the recycle systems employed in the manufacturing processes.

All other chemical subcategories generate process waste water streams which must be controlled and treated. The constituents contained in the process waste water vary with the chemical produced. Suspended solids are present as a result of most production processes. These may generally be removed by sedimentation basins, clarifiers, filters, centrifuges and evaporation. These treatment technologies can be used when combined with disposal of residue.

Numerous metal ions and metal compounds are generated by the processes used to manufacture many chemicals. Treatment of these wastes generally consists of various precipitation processes and subsequent solids removal. Fluorides are usually removed by lime precipitation.

Sulfides and sulfites are present as the result of manufacturing various sulfur compounds. Treatment systems to remove these pollutants include aeration processes, oxidation by various chemicals and biological systems.

The proper management of solid wastes resulting from pollution control systems must be practiced. Pollution control technologies generate many different amounts and types of solid wastes and liquid concentrates through the removal of pollutants. These substances vary greatly in their chemical and physical composition and may be either hazardous or non-hazardous. A variety of techniques may be employed to dispose of these substances depending on the degree of hazard.

If thermal processing (incineration) is the choice for disposal, provisions must be made to ensure against entry of hazardous pollutants into the atmosphere. Consideration should also be given to recovery of materials of value in the wastes.

For those waste materials considered to be non-hazardous where land disposal is the choice for disposal, practices similar to proper sanitary landfill technology may be followed. The principles set forth in the EPA's Land Disposal of Solid Wastes Guidelines 40 CFR Part 241 may be used as guidance for acceptable land disposal techniques.

For those waste materials considered to be hazardous, disposal will require special precautions. In order to ensure long-term protection of public health and the environment, special preparation and pretreatment may be required prior to disposal. If land disposal is to be practiced, these sites must not allow movement of pollutants to either ground or surface waters. Sites should be selected that have natural soil and geological conditions to prevent such contamination or, if such conditions do not exist, artificial means (e.g. liners) must be provided to ensure long-term protection of the environment from hazardous materials. Where appropriate, the location of solid hazardous materials disposal sites should be permanently recorded in the appropriate office of the legal jurisdiction in which the site is located.

(iv) *Cost estimates for control of waste water pollutants.* Costs for the treatment and control of water-borne pollutants for inorganic chemicals included in this study have been developed, for the most part, on a compilation and summation of costs for individual plants rather than a statistical projection based on a small fraction of existing plants. This approach was necessary because many of the forty-seven chemicals are made in only a very few plants in the U.S., most or all of which were studied. The percentage of production covered by actual plant visits or plant submitted data is more than 75 percent for 25 of the chemical products studied; 50 to 75 percent for an additional 10 products; and up to 50 percent for the remainder.

A summary of cost and energy information for attainment of no discharge of pollutants in process waste waters as developed from the specific chemical overall cost analyses is presented in the development document.

For the forty-seven inorganic chemicals of this study, treatment and disposal investment capital already spent is estimated as $19,000,000. Much of this money has been spent to reach the minimum treatment level. A fair portion has been spent for best practicable or best available technology levels. It is estimated that approximately twice the amount of total additional capital expenditure is needed to achieve no discharge of pollutants in process waste water at all facilities in these industries.

Removal of dissolved solids is expensive at this time. The disposal of soluble solids once they have been removed from the waste water is another difficult problem. New plants have more options in solving these problems economically than do existing plants. New source facilities with heavy dissolved solids effluents and/or heavy solid waste loads may avoid costly waste water treatments by geographical location. A favorable balance of climatic evaporation to rainfall eases these problems. Land storage or landfill space should be available for solids disposal.

New plants being built can avoid major future waste abatement costs by inclusion of: (1) dikes, emergency holding ponds, catch basins and other containment facilities for leaks, spills and wash downs, (2) piping, trenches, sewers, sumps, and other isolation facilities to keep leaks, spills and process water separate from cooling and sanitary water, (3) noncontact condensers for cooling water, (4) efficient reuse, recycling and recovery of all possible raw materials and byproducts and (5) closed cycle water utilization whenever possible. Closed cycle operation eliminates all waterborne wastes to surface water.

Cost information was obtained directly from industry, from engineering firms, equipment suppliers, government sources, and available literature whenever possible. Costs are based on actual industrial installations or engineering estimates for projected facilities as supplied by contributing companies. In the absence of such information, costs estimates have been developed from either plant-supplied costs for similar waste treatment installation at plants making other inorganic chemicals or general cost estimates for treatment technology.

In the Cost Analysis Tables, the values of invested capital and annual costs given are the cost to plants that do not have the specified technology in place now.

Costs have been uniformly calculated based on 10 percent straight line depreciation. There is an additional amount of interest at 6 percent of the depreciated value per year (pollution-abatement tax-free money). These plus the costs of insurance and taxes yield a total overall annualized fixed cost of 15 percent per year. All costs have been

adjusted to 1971 values and are quoted as such unless otherwise noted.

Costs are developed for various levels of technology as described in Level Descriptions. The A level is the least stringent of the levels. B, C, D and E levels are other levels of treatment that were evaluated.

Treatment rationales employed in the cost development are: (1) All noncontact cooling water is exempted from treatment (and treatment costs) provided no process wast water pollutants are introduced, (2) water treatment, cooling tower and boiler blowdown discharged are not treated, (3) treatment of dissolved solids, other than harmful pollutants, is not included in cost development unless such removal is judged to be economically achievable, and (4) disposal considerations are covered in cost development including evaporation ponds, land spoilage and solid wastes handling.

(v) *Energy requirements and nonwater quality environmental impacts.* The inorganic chemicals manufacturing industry has an estimated annual energy consumption of 3,020,000 billion kg/cal (12,000,000 billion BTU). Additional energy requirements to implement best practicable technology currently available are insignificant. An additional 60 billion kg/cal (240 billion BTU) will be required annually to implement best available technology economically achievable. This represents an increase in energy consumption of less than 0.01 percent above that currently used.

No significant increase in noise pollution, radiation, air pollution or thermal pollution will result from the implementation of water pollution control technology.

(vi) *Economic impact.* Generally, the costs of compliance are low and are not expected to significantly affect prices, profitability, industry production or growth in the product segments covered by these guidelines. In most cases, it is expected that these costs can be passed on to the consumer through price increases ranging from zero to 6.1 percent for 1977 and from zero to 6.5 percent by 1983. However, in two segments—nickel sulfate and ferric chloride—some producers will have to absorb these costs in their profit margins. As a result, it is estimated that one plant in the nickel sulfate segment, representing about 8 to 10 percent of current productive capacity, may close due to the 1977 effluent limitations. Although capacity utilization is high in this segment, it is expected that the larger-volume producers can make up this lost production. Approximately fifteen to twenty employees would be affected by these closures; however, there should be no significant impact on the local communities, balance of trade, or industry growth for these segments.

In addition, it is estimated that approximately two ferric chloride plants may close as a result of increased competition from new lower cost by-product recovery processes. These plants currently represent fifty-six percent of the industry's productive capacity; however, they are expected to represent a smaller portion of future capacity after new plants are completed. Approximately sixty-five to seventy employees would be affected by these closures. The impact on the communities is expected to be minimal and no balance of trade or industry growth effects are anticipated.

The report entitled "Development Document for Interim Final Effluent Limitations and Guidelines and Proposed New Source Performance Standards for the Inorganic Products Segment of the Inorganic Chemicals Manufacturing Point Source Category" details the analysis undertaken in support of the interim final regulations set forth herein and is available for inspection in the EPA Freedom of Information Center, Room 204, West Tower, Waterside Mall, Washington, D.C., at all EPA regional offices, and at State water pollution control offices. A supplementary analysis prepared for EPA of the possible economic effects of the regulation is also available for inspection at these locations. Copies of both of these documents are being sent to persons or institutions affected by the proposed regulation or who have placed themselves on a mailing list for this purpose (see EPA's Advance Notice of Public Review Procedures, 38 FR 21202, August 6, 1973). An additional limited number of copies of both reports are available. Persons wishing to obtain a copy may write the EPA Office of Public Affairs, Environmental Protection Agency, Washington, D.C. 20460, Attention: Ms. Ruth Brown, A–107.

When this regulation is promulgated in final rather than interim form, revised copies of the Development Document will be available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the economic analysis document will be available through the National Technical Information Service, Springfield, VA 22151.

(c) *Summary of public participation.* Prior to this publication, the agencies and groups listed below were consulted and given an opportunity to participate in the development of effluent limitations, guidelines and standards proposed for the inorganic chemicals manufacturing category. All participating agencies have been informed of project developments. An initial draft of the Development Document was sent to all participants and comments were solicited on that report. The following are the principal agencies and groups consulted: (1) Effluent Standards and Water Quality Information Advisory Committee (established under section 515 of the Act); (2) all State and U.S. Territory Pollution Control Agencies; (3) the Manufacturing Chemists' Association; (4) the Chlorine Institute; (5) Puerto Rico Land Administration; (6) American Society of Mechanical Engineers; (7) American Society of Civil Engineers; (8) Hudson River Sloop Restoration, Inc.; (9) National Resource Defense Council; (10) Water Pollution Control Federation; (11) the National Wildlife Federation; and (12) the Salt Institute.

The following responded with comments: (1) Colorado Department of Public Health; (2) Kentucky Department for Natural Resources and Environmental Protection; (3) New York Department of Environmental Conservation; (4) Illinois Environmental Protection Agency; (5) Virginia State Water Control Board; (6) Arizona State Department of Health; (7) Florida Department of Pollution Control; (8) U.S. Water Resources Council; (9) BASF Wyandotte Corporation; (10) E. I. du Pont de Nemours and Company; (11) Allied Chemical Corporation; and (12) Manufacturing Chemists Association.

The primary issues raised in the development of the interim final effluent limitations and guidelines and the treatment of these issues herein are as follows:

(1) A common criticism was that disposal of storm water runoff makes the requirement of "no discharge of process water pollutants" unrealistic for many chemical subcategories. Land is often unavailable to provide total impoundment of storm water runoff and some provision must be established for periodic discharges.

Storm water runoff water is not considered process waste water for the purposes of the effluent limitations guidelines presented herein.

(2) Several commenters stated that the cost estimates for implementation of best practicable control technology currently available appear low and do not reflect total cost. Also, in cases where cost estimates appear realistic, some commenters state that the data has been misrepresented by averaging individual plant costs to reach an industry-wide cost figure.

Cost information was obtained directly from industry during plant visits, from engineering firms and equipment suppliers, and from available literature. This data has been obtained from the best sources available to the Agency and is believed to be representative of actual capital and operating costs.

In the draft development document, costs were presented that were applicable to the subcategory as a whole and not to any individual facility. The presentation of costs in the interim final development document has been changed to apply to costs for a typical plant that is not using the indicated treatment system.

(3) Some commenters questioned the establishment of daily maximum limitations as twice the thirty-day average. They state that consideration should be given to the variability of the raw waste load, shutdown and startup, and to different types of processes as well as the method of operation, i.e., continuous or batch.

Extensive, long-term data are not available for each of the chemical subcategories. It was necessary, therefore, to rely on data from other segments of the inorganic chemicals industry, as well as data from other industrial categories. Based on this information and using engineering judgment on the performance reliability of recommended treatment systems, a factor of two appears generous

for most subcategories. This factor considers raw waste load variability. In the case of shock loads which may upset a treatment system, equalization basins or surge tanks may be employed.

The issue most often raised is that a biological treatment system is susceptible to variations in influent loadings. However, the general treatment of choice for the inorganic chemicals industry is physical-chemical, not biological, and thus not as dependent on variations in influent loads. The reevaluation of the available information suggests that the daily maximum limitations based on best practicable control technology currently available should be three times the thirty-day average for the following batch processes: (a) Chrome pigments, (b) copper sulfate, (c) lithium carbonate (spodumene ore process), (d) nickel sulfate, (e) potassium iodide, and (f) silver nitrate.

(4) Many commenters recommend specifying a range of effluent reductions attainable by application of various control and treatment technologies instead of establishing rigid effluent limitations based on production volume.

The approach taken in developing effluent limitations guidelines and standards of performance for the inorganic chemicals manufacturing industry was to examine all variables and segment the industry into workable subcategories consistent with these variations. Subcategories have been established based on the chemical product manufactured. In cases where two dissimilar processes are used to manufacture the same product, separate limitations have been established within the subcategory. Thus, ranges are provided for, as are other factors, by segmenting the inorganic chemicals manufacturing point source category into discrete subcategories, each with its own limitation. Production-based limitations have been established to ensure adequate treatment. Concentration-based standards may be achieved by dilution of process waste waters which is contrary to the intent of the Act.

(5) Some commenters questioned the establishment of a limitation based on best practicable control technology currently available which requires zero discharge of process waste water pollutants for twenty-four of the forty-nine process subgroupings. They state that this limitation is often not achievable using the recommended treatment systems.

The initial recommendations have been revised for many chemical subcategories. As shown in the regulation, based on BPCTCA, no discharge of process waste water pollutants is required for all or part of 18 of the 27 interim final process subcategories. Many of these processes are dry or discharge no waste water to navigable waters. The treatment and control technologies to achieve this level of pollutant reduction are summarized in the preamble paragraph (b) (2) (iii) and sections VII, IX and X of the Development Document.

(6) Some commenters stated that the term "harmful materials" often appears in the contractor's report and is ambiguous. They recommend precise definition of the phrase or substitution of a more definitive term.

This ambiguity has been clarified in the Draft Development Document for Interim Final and Proposed Effluent Limitations Guidelines and Proposed New Source Performance Standards for the Significant Inorganic Products Segment of the Inorganic Chemicals Manufacturing Point Source Category.

(7) Many commenters noted that the recommendation of "no" hydrogen sulfide as the limitation for several chemical subcategories is technically unachievable because of the presence of sulfide ions in the waste water.

Because the concentration of hydrogen sulfide in the waste water depends on pH and on the sulfide ion concentration, the limitation on hydrogen sulfide has been deleted, while the sulfide limitation is maintained.

(8) Several State pollution control agencies expressed concern because some limitations would allow industrial point sources to discharge waste water constituents to receiving waters in concentrations greater than those allowable by water quality standards.

The effluent limitations guidelines and new source performance standards presented herein are based on the practicability and availability of control and treatment technologies. They are not water quality related. However, more stringent standards may be applied to a point source, pursuant to section 303 of the Act, when necessary to preserve water quality.

(9) Some reviewers commented that leaks and spills may be contained and treated before discharge, but that reuse or recycle may not be practical in all cases. Containment and/or reuse of all contaminated noncontact cooling water is not generally feasible.

Contaminated non-process wastewater has been defined in certain subcategories which otherwise require no discharge of pollutants. In such subcategories, contaminated non-process wastewaters are not covered by these guidelines and limitations on such discharges may be established by the permit issuing authority.

(10) One commenter noted that the basis of cyanide limits is 0.01 mg/l. The detectable limit is also 0.01 mg/l, such that at 0.02 mg/l the analysis is only fifty percent accurate. The waste water analysis at the recommended level would be unusable for enforcement purposes.

The cyanide limitations have been revised. A concentration basis of 0.05 mg/l for oxidizable cyanide and 0.5 mg/l for total cyanide has been established as achievable by a well operated treatment system in this industry as well as in other industries.

(11) One manufacturer stated that the guidelines for ammonium chloride production considered only the manufacture from Solvay process wastes and the manufacture by reacting anhydrous ammonia with hydrogen chloride gas. It was questioned whether or not the guidelines would be applied to other production processes.

The effluent limitations presented in Subpart X apply only to the manufacture of ammonium chloride by the processes studied, as stated in § 415.240.

(12) Several commenters concurred with the definition of best practicable technology currently available for ammonium chloride production as neutralization prior to discharge. However, they note that the recommended limitation is not consistent with the technology.

The limitation for best practicable technology currently available has been revised to allow for the discharge of small quantities of ammonia present in the barometric condenser cooling water. The limitation based on best available technology economically achievable and the new source performance standard require no discharge of process waste water pollutants. This may be accomplished by replacing barometric condensers with noncontact heat exchangers.

(13) One commenter stated that chemical precipitation and filtration should be required as best practicable control technology currently available for chrome pigments. It was also stated that limitations should be established on other metals, including cadmium, mercury, copper, etc., as well as BOD5.

Because of the high water usage in the chrome pigment industry, filtration is not considered to be best practicable control technology currently available. It is, however, required for new sources and for best available technology economically achievable. While integrated pigment complexes may discharge some metals other than those limited, it was concluded that they are generally not present in sufficient quantities to be the subject of effluent limitation guidelines. All discharges must conform to water quality standards, as well as standards for toxic pollutants. Because of the use of acetates, a complex discharge may contain some BOD5, however, sufficient data was not available to establish effluent limitations.

(14) For chrome pigments one commenter criticized the hexavalent chromium limitation based on best available technology economically achievable as being unachievable.

The hexavalent chromium limitation for best available technology has been reviewed and revised to 0.0017 kg/kkg, which is readily achievable by the indicated technology as practiced in well operated treatment systems.

(15) For calcium carbonate production, a commenter questioned the validity of determining a process waste water discharge flow basis by averaging the data from two of three plants. It was recommended that a variable limit be established for this subcategory.

Two plants have similar waste water flow rates. This was used as the basis of the guidelines. There are no process differences which would preclude the other plants from attaining the same water use as the two plants used as a basis for the guidelines.

(16) For calcium hydroxide production, one commenter questioned whether

the effluent guidelines are applicable to the production of calcium hydroxide by the reaction of calcium chloride and caustic soda.

The present guidelines for calcium hydroxide production are applicable only to the manufacturing process wherein water is reacted with calcium oxide.

(17) For carbon monoxide and by-product hydrogen it was recommended that the carbon monoxide and byproduct hydrogen production subcategory be deleted from the inorganic chemicals manufacturing category because they are reforming processes in petroleum refineries.

This subcategory is retained because the process is associated with ammonia plants which are sometimes, but not usually, part of a petroleum refinery.

(18) It was pointed out that only chromic acid production in facilities which manufacture dichromates was investigated.

Seventy-five percent of the industry capacity for chromic acid is associated with dichromate facilities. Hence, as shown in § 415.350, the guidelines apply only to chromic acid production in dichromate facilities.

(19) The fluoride limitation was criticized for being low and not achievable using the recommended technologies.

The fluoride limitation has been revised. A concentration basis of 20 mg/l fluoride was used to compute the revised limitation. This is consistent with the actual performance of lime precipitation systems.

(20) Several commenters are concerned that the Agency may be extending the definition of "navigable waters" to include underground waters.

The issues whether or not the term "navigable waters" as defined in the FWPCA includes underground waters, and if so, to what extent such waters are included, have not yet been finally resolved by the courts. It is not the Agency's intention in these guidelines to take a position on these issues. These regulations do not establish effluent limitations, guidelines or new source performance standards applicable to brines returned to the underground process water source from which they were pumped. Moreover, these regulations do not designate any body of water, or class of water bodies, as navigable.

(21) One commenter feels that specific provisions should be included for analytical laboratory wastes.

It has not been demonstrated that laboratory wastes present a problem for the inorganic chemicals industry. There is no evidence that suggests that a significant amount of wastes need arise from analytical laboratory procedures because they result from a planned, routine activity which lends itself to proper disposal of pollutants.

The Agency is subject to an order of the United States District Court for the District of Columbia entered in "Natural Resources Defense Council v Train" et al. (Cv. No. 1609–73) which requires the promulgation of regulations for this industry category no later than December 10, 1974. This order also requires that such regulations become effective immediately upon publication. In addition, it is necessary to promulgate regulations establishing limitations on the discharge of pollutants from point sources in this category so that the process of issuing permits to individual dischargers under section 402 of the Act is not delayed.

It has not been practicable to develop and publish regulations for this category in proposed form, to provide a 30 day comment period, and to make any necessary revisions in light of the comments received within the time constraints imposed by the court order referred to above. Accordingly, the Agency has determined pursuant to 5 U.S.C. 553(b) that notice and comment on the interim final regulations would be impracticable and contrary to the public interest. Good cause is also found for these regulations to become effective May 21, 1975.

Interested persons are encouraged to submit written comments. Comments should be submitted in triplicate to the EPA Office of Public Affairs, Environmental Protection Agency, Washington, D.C. 20460, Attention: Ms. Ruth Brown, A–107. Comments on all aspects of the regulation are solicited. In the event comments are in the nature of criticisms as to the adequacy of data which are available, or which may be relied upon by the Agency, comments should identify and, if possible, provide any additional data which may be available and should indicate why such data are essential to the amendment or modification of the regulation. In the event comments address the approach taken by the Agency in establishing an effluent limitation or guideline EPA solicits suggestions as to what alternative approach should be taken and why and how this alternative better satisfies the detailed requirements of sections 301 and 304(b) of the Act.

A copy of all public comments will be available for inspection and copying at the EPA Freedom of Information Center, Room 204, West Tower, Waterside Mall, 401 M Street, SW., Washington, D.C. A copy of preliminary draft contractor reports, the Development Document and economic study referred to above, and certain supplementary materials supporting the study of the industry concerned will also be maintained at this location for public review and copying. The EPA information regulation, 40 CFR Part 2, provides that a reasonable fee may be charged for copying.

All comments received on or before June 23, 1975, will be considered. Steps previously taken by the Environmental Protection Agency to facilitate public response within this time period are outlined in the advance notice concerning public review procedures published on August 6, 1973 (38 FR 21202). In the event that the final regulation differs substantially from the interim final regulations set forth herein the Agency will consider petitions for reconsideration of any permits issued in accordance with this interim final regulation.

In consideration of the foregoing, 40 CFR Part 415 is hereby amended as set forth below.

Dated: May 2, 1975.

JOHN QUARLES,
Acting Administrator.

Subpart W—Aluminum Fluoride Production Subcategory

Sec.
415.230 Applicability; description of the aluminum fluoride production subcategory.
415.231 Specialized definitions.
415.232 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart X—Ammonium Chloride Production Subcategory

415.240 Applicability; description of the ammonium chloride production subcategory.
415.241 Specialized definitions.
415.242 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart Y—Ammonium Hydroxide Production Subcategory

415.250–415.252 [Reserved].

Subpart Z—Barium Carbonate Production Subcategory

415.260–415.262 [Reserved].

Subpart AA—Borax Production Subcategory

415.270 Applicability; description of the borax production subcategory.
415.271 Specialized definitions.
415.272 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AB—Boric Acid Production Subcategory

415.280 Applicability; description of the boric acid production subcategory.
415.281 Specialized definitions.
415.282 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AC—Bromine Production Subcategory

415.290 Applicability; description of the bromine production subcategory.
415.291 Specialized definitions.
415.292 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AD—Calcium Carbonate Production Subcategory

415.300 Applicability; description of the calcium carbonate production subcategory.
415.301 Specialized definitions.
415.302 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AE—Calcium Hydroxide Production Subcategory

Sec.
415.310 Applicability; description of the calcium hydroxide production subcategory.
415.311 Specialized definitions.
415.312 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AF—Carbon Dioxide Production Subcategory

415.320–415.322 [Reserved]

Hydrogen Production Subcategory

415.330 Applicability; description of the carbon monoxide & by-product hydrogen production subcategory.
415.331 Specialized definitions.
415.332 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AH—Chrome Pigments Production Subcategory

415.340 Applicability; description of the chrome pigments production subcategory.
415.341 Specialized definitions.
415.352 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AI—Chromic Acid Production Subcategory

415.350 Applicability; description of the chromic acid production subcategory.
415.351 Specialized definitions.
415.352 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AJ—Copper Sulfate Production

415.360 Applicability; description of the copper sulfate production subcategory.
415.361 Specialized definitions.
415.362 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AK—Cuprous Oxide Production Subcategory

415.370–415.372 [Reserved].

Subpart AL—Ferric Chloride Production Subcategory

415.380 Applicability; description of the ferric chloride production subcategory.
415.381 Specialized definitions.
415.382 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AM—Ferrous Sulfate Production Subcategory

415.390–415.392 [Reserved]

Subpart AN—Fluorine Production Subcategory

415.400 Applicability; description of the fluorine production subcategory.

Sec.
415.401 Specialized definitions.
415.402 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AO—Hydrogen Production Subcategory

415.410 Applicability; description of the hydrogen production subcategory.
415.411 Specialized defintions.
415.412 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AP—Hydrogen Cyanide Production Subcategory

415.420 Applicability; description of the hydrogen cyanide production subcategory.
415.421 Specialized definitions.
415.422 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AQ—Iodine Production Subcategory

415.430 Applicability; description of the iodine production subcategory.
415.431 Specialized definitions.
415.432 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AR—Lead Monoxide Production Subcategory

415.440 Applicability; description of the lead monoxide production subcategory.
415.441 Specialized definitions.
415.442 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AS—Lithium Carbonate Production Subcategory

415.450 Applicability; description of the lithium carbonate production subcategory.
415.451 Specialized definitions.
415.452 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AT—Manganese Sulfate Production Subcategory

415.460–415.462 [Reserved]

Subpart AU—Nickel Sulfate Production Subcategory

415.470 Applicability; description of the nickel sulfate production subcategory.
415.471 Specialized definitions.
415.472 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AV—Strong Nitric Acid Production Subcategory

415.480–415.482 [Reserved].

Subpart AW—Oxygen and Nitrogen Production Subcategory

Sec.
415.490 Applicability; description of the oxygen and nitrogen production subcategory.
415.491 Specialized definitions.
415.492 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AX—Potassium Chloride Production Subcategory

415.500 Applicability; description of the potassium chloride production subcategory.
415.501 Specialized definitions.
415.502 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AY—Potassium Iodide Production Subcategory

415.510 Applicability; description of the potassium iodide production subcategory.
415.511 Specialized definitions.
415.512 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart AZ—Potassium Permanganate Production Subcategory

415.520–415.522 [Reserved].

Subpart BA—Silver Nitrate Production Subcategory

415.530 Applicability; description of the silver nitrate production subcategory.
415.531 Specialized definitions.
415.532 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart BB—Sodium Bisulfite Production Subcategory

415.540–415.542 [Reserved]

Subpart BC—Sodium Fluoride Production Subcategory

415.550 Applicability; description of the sodium fluoride production subcategory.
415.551 Specialized definitions.
415.552 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart BD—Sodium Hydrosulfide Production Subcategory

415.560–415.562 [Reserved]

Subpart BE—Sodium Hydrosulfite Production Subcategory

415.570–415.572 [Reserved]

Subpart BF—Sodium Silicofluoride Production Subcategory

415.580 Applicability; description of the sodium silicofluoride production subcategory.
415.581 Specialized definitions.
415.582 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart BG—Sodium Thiosulfate Production Subcategory

Sec.
415.590–415.592 [Reserved]

Subpart BH—Stannic Oxide Production Subcategory

415.600 Applicability; description of the stannic oxide production subcategory.
415.601 Specialized definitions.
415.602 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Subpart BI—Sulfur Dioxide Production Subcategory

415.610–415.612 [Reserved]

Subpart BJ—Zinc Oxide Production Subcategory

415.620–415.622 [Reserved]

Subpart BK—Zinc Sulfate Production Subcategory

415.630 Applicability; description of the zinc sulfate production subcategory.
415.631 Specialized definitions.
415.632 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

AUTHORITY: Secs. 301, 304 (b) and (c), Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (c), 86 Stat. 816 et seq., Pub. L. 92–500) (the Act).

Subpart W—Aluminum Fluoride Production Subcategory

§ 415.230 Applicability; description of the aluminum fluoride production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of aluminum fluoride.

§ 415.231 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean aluminum fluoride.

(c) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided*, That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.232 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Fluoride	0.68	0.34
TSS	0.86	0.43
Aluminum	0.34	0.17
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Fluoride	0.68	0.34
TSS	0.86	0.43
Aluminum	0.34	0.17
pH	Within the range 6.0 to 9.0.	

Subpart X—Ammonium Chloride Production Subcategory

§ 415.240 Applicability; description of the ammonium chloride production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of ammonium chloride by the reaction of anhydrous ammonia with hydrogen chloride gas and by the recovery process from Solvay process wastes.

§ 415.241 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean ammonium chloride.

(c) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided*, That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.242 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamen-

tally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from ammonium chloride production by the reaction of anhydrous ammonia with hydrogen chloride gas: There shall be no discharge of process waste water pollutants to navigable waters.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from ammonium chloride production by the recovery process from Solvay process wastes:

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Ammonia (as N)	8.8	4.4
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Ammonia (as N)	8.8	4.4
pH	Within the range 6.0 to 9.0.	

Subpart Y—Ammonium Hydroxide Production Subcategory

§§ 415.250–415.252 [Reserved]

Subpart Z—Barium Carbonate Production Subcategory

§§ 415.260–415.262 [Reserved]

Subpart AA—Borax Production Subcategory

§ 415.270 Applicability; description of the borax production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of borax by the ore-mining process and by the Trona process.

§ 415.271 Specialized definitions.

For the purpose of this subpart: Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

§ 415.272 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

Subpart AB—Boric Acid Production Subcategory

§ 415.280 Applicability; description of the boric acid production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of boric acid from ore-mined borax and from borax produced by the Trona process.

§ 415.281 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean boric acid.

§ 415.282 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this

subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from borax produced by the Trona process: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from ore-mined borax:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Arsenic	0.0028	0.0014
TSS	0.14	0.07
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Arsenic	0.0028	0.0014
TSS	0.14	0.07
pH	Within the range 6.0 to 9.0.	

Subpart AC—Bromine Production Subcategory

§ 415.290 Applicability; description of the bromine production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of bromine by the brine-mining process and by the Trona process.

§ 415.291 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

§ 415.292 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

Subpart AD—Calcium Carbonate Production Subcategory

§ 415.300 Applicability; description of the calcium carbonate production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of calcium carbonate by the milk of lime process and by the recovery process from Solvay process wastes.

§ 415.301 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean calcium carbonate.

§ 415.302 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Department. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from calcium carbonate production by the milk of lime process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.56	0.28
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.56	0.28
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from calcium carbonate production by the recovery process from Solvay process wastes:

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	1.16	0.58
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	1.16	0.58
pH	Within the range 6.0 to 9.0.	

Subpart AE—Calcium Hydroxide Production Subcategory

§ 415.310 Applicability; description of the calcium hydroxide production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of calcium hydroxide by the lime slaking process.

§ 415.311 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided,* That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.312 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different from that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

Subpart AF—Carbon Dioxide Production Subcategory

§§ 415.320–415.322 [Reserved]

Subpart AG—Carbon Monoxide and By-Product Hydrogen Production Subcategory

§ 415.330 Applicability; description of the carbon monoxide & by-product hydrogen production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of carbon monoxide and by-product hydrogen by reforming process.

§ 415.331 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean carbon monoxide plus hydrogen.

(c) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided,* That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.332 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
COD	0.5	0.25
TSS	0.12	0.06
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
COD	0.5	0.25
TSS	0.12	0.06
pH	Within the range 6.0 to 9.0.	

Subpart AH—Chrome Pigments Production Subcategory

§ 415.340 Applicability; description of the chrome pigments production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of chrome pigments.

§ 415.341 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "chrome pigments" shall mean chrome yellow, chrome orange, chrome green, zinc yellow and iron blue.

(c) The term "product" shall mean chrome pigments.

(d) The term "zinc A" means that the zinc limitation is based solely on the production of zinc yellow.

(e) The term "cyanide A" shall mean those cyanides amenable to chlorination as described in "1972 Annual Book of ASTM Standards," 1972, Standard D2036–72, Method B, page 553.

(f) The term "chromium (T)" shall mean total chromium.

§ 415.342 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	5.1	1.7
Chromium (T)	0.10	0.034
Chromium (6+)	0.010	0.0034
Lead	0.42	0.14
Zinc A	0.72	0.27
Cyanide A	0.010	0.0034
Cyanide	0.10	0.034
Iron	0.72	0.27
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	5.1	1.7
Chromium (T)	0.10	0.034
Chromium (6+)	0.010	0.0034
Lead	0.42	0.14
Zinc A	0.72	0.27
Cyanide A	0.010	0.0034
Cyanide	0.10	0.034
Iron	0.72	0.27
pH	Within the range 6.0 to 9.0.	

Subpart AI—Chromic Acid Production Subcategory

§ 415.350 Applicability; description of the chromic acid production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of chromic acid in facilities which also manufacture sodium dichromate.

§ 415.351 Specialized definitions.

For the purpose of this subpart: Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

§ 415.352 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters, except as provided for in § 415.172 (39 FR 9630).

Subpart AJ—Copper Sulfate Production Subcategory

§ 415.360 Applicability; description of the copper sulfate production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of copper sulfate from pure raw materials and by recovery from impure raw materials.

§ 415.361 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and meth-

ods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean copper sulfate.

(c) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided*, That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.362 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production using pure raw materials:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Copper	0.0006	0.0002
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Copper	0.0006	0.0002
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production by the recovery process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.069	0.023
Copper	0.003	0.001
Nickel	0.006	0.002
Selenium	0.0015	0.0005
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.069	0.023
Copper	0.003	0.001
Nickel	0.006	0.002
Selenium	0.0015	0.0005
pH	Within the range 6.0 to 9.0.	

Subpart AK—Cuprous Oxide Production Subcategory

§§ 415.370–415.372 [Reserved]

Subpart AL—Ferric Chloride Production Subcategory

§ 415.380 Applicability; description of the ferric chloride production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of ferric chloride from pickle liquor.

§ 415.381 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided*, That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.382 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a

point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

Subpart AM—Ferrous Sulfate Production Subcategory

§§ 415.390–415.392 [Reserved]

Subpart AN—Fluorine Production Subcategory

§ 415.400 Applicability; description of the fluorine production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of fluorine by the liquid hydrofluoric acid electrolysis process.

§ 415.401 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided,* That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.402 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

Subpart AO—Hydrogen Production Subcategory

§ 415.410 Applicability; description of the hydrogen production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of hydrogen as a refinery by-product.

§ 415.411 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated non-process wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided,* That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.412 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process wastewater pollutants to navigable waters, except as provided for in Part 419 of this chapter (39 FR 16560).

Subpart AP—Hydrogen Cyanide Production Subcategory

§ 415.420 Applicability; description of the hydrogen cyanide production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of hydrogen cyanide as a by-product of acrylonitrile manufacture and by the Andrussow process.

§ 415.421 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean hydrogen cyanide.

(c) The term "Cyanide A" shall mean those cyanides amenable to chlorination by chlorination as described in "1972 Annual Book of ASTM Standards," 1972, Standard D2036–72, Method B, page 553.

§ 415.422 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available.

(a) The following limitations established the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production as a by-product of acrylonitrile production: There shall be no discharge of process waste water pollutants to navigable waters, except as provided for in Part 414, Subcategory F, § 414.62 of this chapter for acrylonitrile.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production by the andrussow process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	2.4	1.2
Cyanide	0.05	0.025
Cyanide A	0.005	0.0025
BOD5	3.6	1.8
Ammonia (as N)	0.36	0.18
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	2.4	1.2
Cyanide	0.05	0.025
Cyanide A	0.005	0.0025
BOD5	3.6	1.8
Ammonia (as N)	0.36	0.18
pH	Within the range 6.0 to 9.0.	

Subpart AQ—Iodine Production Subcategory

§ 415.430 Applicability; description of the iodine production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of iodine.

§ 415.431 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided*, That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.432 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

Subpart AR—Lead Monoxide Production Subcategory

§ 415.440 Applicability; description of the lead monoxide production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of lead monoxide.

§ 415.441 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided*, That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.442 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

Subpart AS—Lithium Carbonate Production Subcategory

§ 415.450 Applicability; description of the lithium carbonate production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of lithium carbonate by the Trona process and from spodumene ore.

§ 415.451 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean lithium carbonate.

§ 415.452 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production by the Trona process: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production from spodumene ore:

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
	(Metric units) kg/kkg of product	
TSS	2.7	0.9
pH	Within the range 6.0 to 9.0.	
	(English units) lb/1,000 lb of product	
TSS	2.7	0.9
pH	Within the range 6.0 to 9.0.	

Subpart AT—Manganese Sulfate Production Subcategory

§§ 415.460–415.462 [Reserved]

Subpart AU—Nickel Sulfate Production Subcategory

§ 415.470 Applicability; description of the nickel sulfate subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of nickel sulfate from pure and impure raw materials.

§ 415.471 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean nickel sulfate.

(c) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided*, That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.472 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data

which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from pure raw materials: There shall be no discharge of process waste water pollutants to navigable waters.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from impure raw materials:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Nickel	0.006	0.002
TSS	0.096	0.032
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Nickel	0.006	0.002
TSS	0.096	0.032
pH	Within the range 6.0 to 9.0.	

Subpart AV—Strong Nitric Acid Production Subcategory

§§ 415.480–415.482 [Reserved]

Subpart AW—Oxygen & Nitrogen Production Subcategory

§ 415.490 Applicability; description of the oxygen and nitrogen production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of oxygen and nitrogen by air liquification.

§ 415.491 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

§ 415.492 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Oil and grease	0.002	0.001
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Oil and grease	0.002	0.001
pH	Within the range 6.0 to 9.0.	

Subpart AX—Potassium Chloride Production Subcategory

§ 415.500 Applicability; description of the potassium chloride production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of potassium chloride by the Trona process and by the mining process.

§ 415.501 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

§ 415.502 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the

discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

Subpart AY—Potassium Iodide Production Subcategory

§ 415.510 Applicability; description of the potassium iodide production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of potassium iodide.

§ 415.511 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this Chapter shall apply to this subpart.

(b) The term "product" shall mean potassium iodide.

§ 415.512 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.09	0.03
Sulfide	0.015	0.005
Iron	0.015	0.005
Barium	0.009	0.003
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.09	0.03
Sulfide	0.015	0.005
Iron	0.015	0.005
Barium	0.009	0.003
pH	Within the range 6.0 to 9.0.	

Subpart AZ—Potassium Permanganate Production Subcategory

§ 415.520–415.522 [Reserved]

Subpart BA—Silver Nitrate Production Subcategory

§ 415.530 Applicability; description of the silver nitrate production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of silver nitrate.

§ 415.531 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean silver nitrate.

(c) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided*, That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.532 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Silver	0.009	0.003
TSS	0.069	0.023
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Silver	0.009	0.003
TSS	0.06	0.02
pH	Within the range 6.0 to 9.0.	

Subpart BB—Sodium Bisulfite Production Subcategory

§ 415.540–415.542 [Reserved]

Subpart BC—Sodium Fluoride Production Subcategory

§ 415.550 Applicability; description of the sodium fluoride production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of sodium fluoride by the anhydrous neutralization process and by the silico fluoride process.

§ 415.551 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided,* That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.552 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administsrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

Subpart BD—Sodium Hydrosulfide Production Subcategory

§§ 415.560–415.562 [Reserved]

Subpart BE—Sodium Hydrosulfite Production Subcategory

§§ 415.570, 415.571 and 415.572 [Reserved]

Subpart BF—Sodium Silicofluoride Production Subcategory

§ 415.580 Applicability; description of the sodium silicofluoride production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of sodium silicofluoride.

§ 415.581 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "product" shall mean sodium silicofluoride.

(c) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by-product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided,* That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.582 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Fluoride	0.5	0.25
TSS	0.6	0.3
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Fluoride	0.5	0.25
TSS	0.6	0.3
pH	Within the range 6.0 to 9.0.	

Subpart BG—Sodium Thiosulfate Production Subcategory

§ 415.590–415.592 [Reserved]

Subpart BH—Stannic Oxide Production Subcategory

§ 415.600 Applicability; description of the stannic oxide production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of stannic oxide by the reaction of tin metal with air or oxygen.

§ 415.601 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods or analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, by product or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided,* That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.602 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology availtble, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (of the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

Subpart BI—Sulfur Dioxide Production Subcategory

§§ 415.610–415.612 [Reserved]

Subpart BJ—Zinc Oxide Production Subcategory

§§ 415.620–415.622 [Reserved]

Subpart BK—Zinc Sulfate Production Subcategory

§ 415.630 Applicability; description of the zinc sulfate production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of zinc sulfate.

§ 415.631 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this chapter shall apply to this subpart.

(b) The term "contaminated nonprocess wastewater" shall mean any water which, during manufacturing or processing, comes into incidental contact with any raw material, intermediate product, finished product, byproduct or waste product by means of (1) rainfall runoff; (2) accidental spills; (3) accidental leaks caused by the failure of process equipment, which are repaired within the shortest reasonable time not to exceed 24 hours after discovery; and (4) discharges from safety showers and related personal safety equipment: *Provided,* That all reasonable measures have been taken (i) to prevent, reduce and control such contact to the maximum extent feasible; and (ii) to mitigate the effects of such contact once it has occurred.

§ 415.632 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirments and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

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ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 415]

[FRL 375-7]

INORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

Effluent Limitations and Guidelines for Existing Sources and Standards of Performance for New Sources and Pretreatment Standards for Existing and for New Sources

Notice is hereby given that effluent limitations for existing sources and standards of performance and pretreatment standards for new sources and pretreatment standards for existing sources set forth in tentative form below are proposed by the Environmental Protection Agency (EPA). On March 12, 1974, EPA promulgated a regulation adding Part 415 to Title 40 of the Code of Federal Regulations (39 FR 9612). That regulation with subsequent amendments established effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources for the inorganic chemicals manufacturing point source category. The regulation proposed below will amend 40 CFR Part 415 inorganic chemicals manufacturing point source category by adding §§ 415.233, 415.234, 415.235 and 415.236 to the aluminum fluoride subcategory (Subpart W), §§ 415.243, 415.244, 415.245 and 415.246 to the ammonium chloride subcategory (Subpart X), §§ 415.273, 415.274, 415.275 and 415.276 to the borax subcategory (Subpart AA), §§ 415.283, 415.284, 415.285 and 415.286 to the boric acid subcategory (Subpart AB), §§ 415.293, 415.294, 415.295 and 415.296 to the bromine subcategory (Subpart AC), §§ 415.303, 415.304, 415.305 and 415.306 to the calcium carbonate subcategory (Subpart AO), §§ 415.423, 415.424, 415.- and 415.316 to the calcium hydroxide subcategory (Subpart AE), §§ 415.333, 415.334, 415.335 and 415.336 to the carbon monoxide and by-product hydrogen subcategory (Subpart AG), §§ 415.343, 415.444, 415.445 and 415.446 to the lead chrome pigments subcategory (Subpart AH), §§ 415.353, 415.354, 415.355 and 415.356 to the chromic acid subcategory (Subpart AI), §§ 415.363, 415.364, 415.365 and 415.366 to the copper sulfate subcategory (Subpart AJ), §§ 415.383, 415.384, 415.385 and 415.386 to the ferric chloride subcategory (Subpart AL), §§ 415.403, 415.404, 415.405 and 415.406 to the fluorine subcategory (Subpart AN), §§ 415.413, 415.414, 415.415 and 415.416 to the hydrogen subcategory (Subpart AO), §§ 415.423, 415.424, 415.425 and 415.426 to the hydrogen cyanide subcategory (Subpart BA), §§ 415.553, 415.434, 415.435 and 415.436 to the iodine subcategory (Subpart AQ), §§ 415.443, 415.444, 415.445 and 415.446 to the lead monoxide subcategory (Subpart AR), §§ 415.453, 415.454, 415.455 and 415.456 to the lithium carbonate subcategory (Subpart AS), §§ 415.473, 415.474, 415.475 and 415.476 to the nickel sulfate subcategory (Subpart AU), §§ 415.493, 415.494, 415.495 and 415.496 to the oxygen and nitrogen subcategory (Subpart AW), §§ 415.503, 415.504, 415.505 and 415.506 to the potassium chloride subcategory (Subpart AX), §§ 415.513, 415.514, 415.515 and 415.516 to the potassium iodide subcategory (Subpart AY), §§ 415.533, 415.534, 415.535 and 415.536 to the silver nitrate subcategory (Subpart BA), §§ 415.553, 415.554, 415.555 and 415.556 to the sodium fluoride subcategory (Subpart BC), §§ 415.583, 415.584, 415.585 and 415.586 to the sodium silicofluoride subcategory (Subpart BF), §§ 415.603, 415.604, 415.605 and 415.606 to the stannic oxide subcategory (Subpart BH), and §§ 415.633, 415.634, 415.635 and 415.636 to the zinc sulfate subcategory (Subpart BK) pursuant to sections 301, 304 (b) and (c), 306(b) and 307 (b) and (c) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316(b) and 1317 (b) and (c), 86 Stat. 816 et seq.; Pub. L. 92-500) (the Act). Simultaneously with this proposed rule making EPA is promulgating interim final regulations which establish the above listed subparts.

In reviewing the data underlying the regulations for a number of subcategories, the Agency noted certain subcategories for which the data are incomplete, or where the data require further analysis before fully supportable effluent limitations can be derived. Accordingly, in order to promulgate these regulations in a timely fashion, consistent with the applicable court decree, the effluent limitations for the ammonium hydroxide production subcategory (Subpart Y), the barium carbonate production subcategory (Subpart Z), the carbon dioxide production subcategory (Subpart AF), the cuprous oxide production subcategory (Subpart AK), the ferrous sulfate production subcategory (Subpart AM), the manganese sulfate production subcategory (Subpart AT), the strong nitric acid production subcategory (Subpart AV), the potassium permanganate production subcategory (Subpart AZ), the sodium bisulfite production subcategory (Subpart BB), the sodium hydrosulfide production subcategory (Subpart BD), the sodium hydrosulfite production subcategory (Subpart BE), the sodium thiosulfate production subcategory (Subpart BG), the sulfur dioxide production subcategory (Subpart BI), and the zinc oxide production subcategory (Subpart BJ), are reserved. It is the Agency's intention to review these subcategories promptly and to revise this Part to include regulations covering such subcategories at the earliest possible date.

(a) *Legal authority.* Section 301(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of the Act. Section 301 (b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of best available technology economically achievable which will result in reasonable further progress toward the national goal of of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) of the Act.

Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedural innovations, operating methods and other alternatives. The regulation herein sets forth effluent limitations and guidelines, pursuant to sections 301 and 304 (b) of the Act, for the aluminum fluoride production subcategory (Subpart W), the ammonium chloride production subcategory (Subpart X), the borax production subcategory (Subpart AA), the boric acid production subcategory (Subpart AB), the bromine production subcategory (Subpart AC), the calcium carbonate production subcategory (Subpart AD), the calcium hydroxide production subcategory (Subpart AE), the carbon monoxide and byproduct hydrogen production subcategory (Subpart AG), the chrome pigments production subcategory (Subpart AH), the chromic acid production subcategory (Subpart AI), the copper sulfate production subcategory (Subpart AJ), the ferric chloride production subcategory (Subpart AL), the fluorine production subcategory (Subpart AN), the hydrogen production subcategory (Subpart AO), the hydrogen cyanide production subcategory (Subpart AP), the iodine production subcategory (Subpart AQ), the lead monoxide production subcategory (Subpart AR), the lithium carbonate production subcategory (Subpart AS), the nickel sulfate production subcategory (Subpart AU), the oxygen and nitrogen production subcategory (Subject AW), the potassium chloride production subcategory (Subpart AX), the potassium iodide production subcategory (Subpart AY), the silver nitrate production subcategory (Subpart BA), the sodium fluoride production subcategory (Subpart BA), the sodium fluoride production subcategory (Subpart BC), the sodium silicofluoride production subcategory (Subpart BF), the stannic oxide production subcategory (Subpart BH), the zinc sulfate production subcategory (Subpart BK) of the inorganic chemicals manufacturing point source category.

Section 304(c) of the Act requires the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of the Act. The report or "Development Document" referred to below pro-

vides, pursuant to section 304(c) of the Act, information on such processes, procedures or operating methods.

Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

Section 306(b)(1)(B) of the Act requires the Administrator to propose regulations establishing Federal standards of performance for categories of new sources included in a list published pursuant to section 306(b)(1)(A) of the Act. The Administrator published in the FEDERAL REGISTER of January 16, 1973, (38 FR 1624) a list of 27 source categories, including the inorganic chemicals manufacturing category. The regulation proposed herein sets forth the standards of performance applicable to new sources for the aluminum fluoride production subcategory (Subpart W), the ammonium chloride production subcategory (Subpart X), the borax production subcategory (Subpart AA), the boric acid production subcategory (Subpart AB), the bromine production subcategory (Subpart AC), the calcium carbonate production subcategory (Subpart AD), the calcium hydroxide production subcategory (Subpart AE), the carbon monoxide and byproduct hydrogen production subcategory (Subpart AG), the chrome pigments production subcategory (Subpart AH), the chromic acid production subcategory (Subpart AI), the copper sulfate production subcategory (Subpart AJ), the ferric chloride production subcategory (Subpart AL), the fluorine production subcategory (Subpart AN), the hydrogen production subcategory (Subpart AO), the hydrogen cyanide production subcategory (Subpart AP), the iodine production subcategory (Subpart AQ), the lead monoxide production subcategory (Subpart AR), the lithium carbonate production subcategory (Subpart AS), the nickel sulfate production subcategory (Subpart AU), the oxygen and nitrogen production subcategory (Subpart AW), the potassium chloride production subcategory (Subpart AX), the potassium iodide production subcategory (Subpart AY), the silver nitrate production subcategory (Subpart BA), the sodium fluoride production subcategory (Subpart BC), the sodium silicofluoride production subcategory (Subpart BF), the stannic oxide production subcategory (Subpart BH), the zinc sulfate production subcategory (Subpart BK) of the inorganic chemicals manufacturing point source category.

Section 307(c) of the Act requires the Administrator to promulgate pretreatment standards for new sources at the same time that standards of performance for new sources are promulgated pursuant to section 306. §§ 415.236, 415.246, 415.276, 415.286, 415.296, 415.306, 415.316, 415.336, 415.346, 415.356, 415.366, 415.386, 415.406, 415.416, 415.426, 415.436, 415.446, 415.456, 415.476, 415.496, 415.506, 415.516, 415.536, 415.556, 415.586, 415.606, and 415.636, proposed below, provide pretreatment standards for new sources within the aluminum fluoride production subcategory (Subpart W), the ammonium chloride production subcategory (Subpart X), the borax production subcategory (Subpart AA), the boric acid production subcategory (Subpart AB), the bromine production subcategory (Subpart AC), the calcium carbonate production subcategory (Subpart AD), the calcium hydroxide production subcategory (Subpart AE), the carbon monoxide and byproduct hydrogen production subcategory (Subpart AG), the chrome pigments production subcategory (Subpart AH), the chromic acid production subcategory (Subpart AI), the copper sulfate production subcategory (Subpart AJ), the ferric chloride production subcategory (Subpart AL), the fluorine production subcategory (Subpart AN), the hydrogen production subcategory (Subpart AO), the hydrogen cyanide production subcategory (Subpart AP), the iodine production subcategory (Subpart AQ), the lead monoxide production subcategory (Subpart AR), the lithium carbonate production subcategory (Subpart AS), the nickel sulfate production subcategory (Subpart AU), the oxygen and nitrogen production subcategory (Subpart AW), the potassium chloride production subcategory (Subpart AX), the potassium iodide production subcategory (Subpart AY), the silver nitrate production subcategory (Subpart BA), the sodium fluoride production subcategory (Subpart BC), the sodium silicofluoride production subcategory (Subpart BF), the stannic oxide production subcategory (Subpart BH), the zinc sulfate production subcategory (Subpart BK) of the inorganic chemicals manufacturing point source category. Section 307(b) of the Act requires the establishment of pretreatment standards for pollutants introduced into publicly owned treatment works and 40 CFR Part 128 establishes that the Agency will propose specific pretreatment standards at the time effluent limitations are established for point source discharges. §§ 415.234, 415.244, 415.274, 415.284, 415.294, 415.304, 415.314, 415.334, 415.344, 415.354, 415.364, 415.384, 415.404, 415.414, 415.424, 415.434, 415.444, 415.454, 415.474, 415.494, 415.504, 415.514, 415.534, 415.554, 415.584, 415.604, and 415.634, proposed below provide pretreatment standards for existing sources within the aluminum fluoride production subcategory (Subpart W), the ammonium chloride production subcategory (Subpart X), the borax production subcategory (Subpart AA), the boric acid production subcategory (Subpart AB), the bromine production subcategory (Subpart AC), the calcium carbonate production subcategory (Subpart AD), the calcium hydroxide production subcategory (Subpart AE), the carbon monoxide and byproduct hydrogen production subcategory (Subpart AG), the chrome pigments production subcategory (Subpart AH), the chromic acid production subcategory (Subpart AI), the copper sulfate production subcategory (Subpart AJ), the ferric chloride production subcategory (Subpart AL), the fluorine production subcategory (Subpart AN), the hydrogen production subcategory (Subpart AO), the hydrogen cyanide production subcategory (Subpart AP), the iodine production subcategory (Subpart AQ), the lead monoxide production subcategory (Subpart AR), the lithium carbonate production subcategory (Subpart AS), the nickel sulfate production subcategory (Subpart AU), the oxygen and nitrogen production subcategory (Subpart AW), the potassium chloride production subcategory (Subpart AX), the potassium iodide production subcategory (Subpart AY), the silver nitrate production subcategory (Subpart BA), the sodium fluoride production subcategory (Subpart BC), the sodium silicofluoride production subcategory (Subpart BF), the stannic oxide production subcategory (Subpart BH), the zinc sulfate production subcategory (Subpart BK) of the inorganic chemicals manufacturing point source category.

(b) Summary and Basis of Proposed Effluent Limitations for Existing Sources and Standards of Performance and Pretreatment Standards for New Sources and Pretreatment Standards for existing Sources.

The general methodology and summary of conclusions are discussed in considerable detail in the preamble of the interim final regulation for the aluminum fluoride production subcategory (Subpart W), the ammonium chloride production subcategory (Subpart X), the borax production subcategory (Subpart AA), the boric acid production subcategory (Subpart AB), the bromine production subcategory (Subpart AC), the calcium carbonate production subcategory (Subpart AD), the calcium hydroxide production subcategory (Subpart AE), the carbon monoxide and byproduct hydrogen production subcategory (Subpart AG), the chrome pigments production subcategory (Subpart AH), the chromic acid production subcategory (Subpart AI), the copper sulfate production subcategory (Subpart AJ), the ferric chloride production subcategory (Subpart AL), the fluorine production subcategory (Subpart AN), the hydrogen production subcategory (Subpart AO), the hydrogen cyanide production subcategory (Subpart AP), the iodine production subcategory (Subpart AQ), the lead monoxide production subcategory (Subpart AR), the lithium carbonate production subcategory (Subpart AS), the nickel sulfate production subcategory (Subpart AU), the oxygen and nitrogen production subcategory (Subpart AW), the potassium chloride production subcategory (Subpart AX), the potassium iodide production subcategory (Subpart AY), the silver nitrate production subcategory (Subpart BA) the sodium fluoride production subcategory (Subpart BC), the sodium silicofluoride production subcategory (Subpart BF), the stannic oxide production subcategory

(Subpart BH), the zinc sulfate production subcategory (Subpart BK) of the inorganic chemicals manufacturing point source category which are being promulgated by EPA simultaneously with publication of this proposed regulation. The information contained in the preamble to the interim final regulation is incorporated herein by reference. The proposed regulation set forth below proposes pretreatment standards for pollutants introduced into publicly owned treatment works. The proposal will establish for each subpart the extent of application of effluent limitations to existing sources and to new sources which discharge to publicly owned treatment works. The regulation is intended to be complementary to the general regulation for pretreatment standards for existing sources set forth at 40 CFR Part 128. The general regulation was proposed July 19, 1973 (38 FR 19236), and published in final form on November 8, 1973 (38 FR 30982). The regulation proposed below applies to users of publicly owned treatment works which fall within the description of the point source category to which the limitations and standards apply. However, the proposed pretreatment regulation applies to the introduction of pollutants which are directed into a publicly owned treatment works, rather than to discharges of pollutants to navigable waters.

The general pretreatment standard divides pollutants discharged by users of publicly owned treatment works into two broad categories: "compatible" and "incompatible." Compatible pollutants are generally not subject to pretreatment standards. However, 40 CFR 128.131 (prohibited wastes) may be applicable to compatible pollutants. Additionally, local pretreatment requirements may apply (see 40 CFR 128.110). Incompatible pollutants are subject generally to pretreatment standards as provided in 40 CFR 128.133. §§ 415.234, 415.244, 415.274, 415.284, 415.294, 415.304, 415.314, 415.334, 415.344, 415.354, 415.364, 415.384, 415.404, 415.414, 415.424, 415.434, 415.444, 415.454, 415.474, 415.494, 415.504, 415.514, 415.534, 415.554, 415.584, 415.604, and 415.634 of the regulation proposed below are intended to implement that portion of § 128.133, above, requiring that a separate provision be made stating the application to pretreatment standards of effluent limitations based upon best practicable control technology currently available.

Questions were raised during the public comment period on the proposed general pretreatment standard (40 CFR Part 128) about the propriety of applying a standard based upon best practicable control technology currently available to all plants subject to pretreatment standards. In general, EPA believes the analysis supporting the effluent limitations and guidelines is adequate to make a determination regarding the application of those standards to users of publicly owned treatment works. However, to ensure that those standards are appropriate in all cases, EPA now seeks additional comments focusing upon the application of effluent limitations guidelines to users of publicly owned treatment works.

The report entitled "Development Document for Interim Final Effluent Limitations and Guidelines and Proposed New Source Performance Standards for the Inorganic Products Segment of the Inorganic Chemicals Manufacturing Point Source Category" details the analysis undertaken in support of the regulation being proposed herein and is available for inspection in the EPA Freedom of Information Center, Room 204, West Tower, Waterside Mall, Washington, D.C., at all EPA regional offices, and at State water pollution control officers. A supplementary analysis prepared for EPA of the possible economic effects of the proposed regulation is also available for inspection at these locations. Copies of both of these documents are being sent to persons or institutions affected by the proposed regulation or who have placed themselves on a mailing list for this purpose (see EPA's Advance Notice of Public Review Procedures, 38 FR 21202, August 6, 1973). An additional limited number of copies of both reports are available. Persons wishing to obtain a copy may write the EPA Freedom of Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Ms. Ruth Brown, A-107.

When this regulation is promulgated, revised copies of the Development Document will be available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the Economic Analysis will be available through the National Technical Information Service, Springfield, Virginia 22151.

(c) *Summary of public participation.* A full listing of participants and discussion of comments and responses is included in the preamble of the interim final regulation for subparts W through BK being simultaneously promulgated by EPA and are incorporated herein by reference.

Interested persons may participate in this rulemaking by submitting written comments in triplicate to the EPA office of Public Affairs, Environmental Protection Agency, Washington, D.C. 20460, Attention: Ms. Ruth Brown, A-107. Comments on all aspects of the proposed regulation are solicited. In the event comments are in the nature of criticisms as to the adequacy of data which are available, or which may be relied upon by the Agency, comments should identify and, if possible, provide any additional data which may be available and should indicate why such data are essential to the development of the regulations. In the event comments address the approach taken by the Agency in establishing a standard of performance or pretreatment standard, EPA solicits suggestions as to what alternative approach should be taken and why and how this alternative better satisfies the detailed requirements of sections 306 and 307(b) and (c) of the Act.

A copy of all public comments will be available for inspection and copying at the EPA Freedom of Information Center, Room 204, West Tower, Waterside Mall, 401 M Street, SW., Washington, D.C. A copy of preliminary draft contractor reports, the Development Document and economic study referred to above, and certain supplementary materials supporting the study of the industry concerned will also be maintained at this location for public review and copying. The EPA information regulation, 40 CFR Part 2, provides that a reasonable fee may be charged for copying.

All comments received on or before June 23, 1975, will be considered. Steps previously taken by the Environmental Protection Agency to facilitate public response within this time period are outlined in the advance notice concerning public review procedures published on August 6, 1973 (38 FR 21202).

Date: May 2, 1975.

JOHN QUARLES,
Acting Administrator.

PART 415—INORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

Subpart W—Aluminum Fluoride Production Subcategory

Sec.

415.233 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.234 Pretreatment standards for existing sources.

415.235 Standards of performance for new sources.

415.236 Pretreatment standards for new sources.

Subpart X—Ammonium Chloride Production Subcategory

415.243 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.244 Pretreatment standards for existing sources.

415.245 Standards of performance for new sources.

415.246 Pretreatment standards for new sources.

Subpart Y—Ammonium Hydroxide Production Subcategory

415.253–415.256 [Reserved]

Subpart Z—Barium Carbonate Production Subcategory

415.263–415.266 [Reserved]

Subpart AA—Borax Production Subcategory

415.273 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.274 Pretreatment standards for existing sources.

415.275 Standards of performance for new sources.

415.276 Pretreatment standards for new sources.

Subpart AB—Boric Acid Production Subcategory

Sec.

415.283 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.284 Pretreatment standards for existing sources.

415.285 Standards of performance for new sources.

415.286 Pretreatment standards for new sources.

Subpart AC—Bromine Production Subcategory

415.293 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.294 Pretreatment standards for existing sources.

415.295 Standards of performance for new sources.

415.296 Pretreatment standards for new sources.

Subpart AD—Calcium Carbonate Production Subcategory

415.303 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.304 Pretreatment standards for existing sources.

415.305 Standards of performance for new sources.

415.306 Pretreatment standards for new sources.

Subpart AE—Calcium Hydroxide Production Subcategory

415.313 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.314 Pretreatment standards for existing sources.

415.315 Standards of performance for new sources.

415.316 Pretreatment standards for new sources.

Subpart AF—Carbon Dioxide Production Subcategory

415.323–415.326 [Reserved]

Subpart AG—Carbon Monoxide & By-Product Hydrogen Production Subcategory

415.333 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.334 Pretreatment standards for existing sources.

415.335 Standards of performance for new sources.

415.336 Pretreatment standards for new sources.

Subpart AH—Chrome Pigments Production Subcategory

415.343 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.344 Pretreatment standards for existing sources.

415.345 Standards of performance for new sources.

415.346 Pretreatment standards for new sources.

Subpart AI—Chromic Acid Production Subcategory

Sec.

415.353 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.354 Pretreatment standards for existing sources.

415.355 Standards of performance for new sources.

415.356 Pretreatment standards for new sources.

Subpart AJ—Copper Sulfate Production Subcategory

415.363 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.364 Pretreatment standards for existing sources.

415.365 Standards of performance for new sources.

415.366 Pretreatment standards for new sources.

Subpart AK—Cuprous Oxide Production Subcategory

415.373–415.376 [Reserved]

Subpart AL—Ferric Chloride Production Subcategory

415.383 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.384 Pretreatment standards for existing sources.

415.385 Standards of performance for new sources.

415.386 Pretreatment standards for new sources.

Subpart AM—Ferrous Sulfate Production Subcategory

415.393–415.396 [Reserved]

Subpart AN—Fluorine Production Subcategory

415.403 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.404 Pretreatment standards for existing sources.

415.405 Standards of performance for new sources.

415.406 Pretreatment standards for new sources.

Subpart AO—Hydrogen Production Subcategory

415.413 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.414 Pretreatment standards for existing sources.

415.415 Standards of performance for new sources.

415.416 Pretreatment standards for new sources.

Subpart AP—Hydrogen Cyanide Production Subcategory

415.423 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.424 Pretreatment standards for existing sources.

415.425 Standards of performance for new sources.

415.426 Pretreatment standards for new sources.

Subpart AQ—Iodine Production Subcategory

Sec.

415.433 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.434 Pretreatment standards for existing sources.

415.435 Standards of performance for new sources.

415.436 Pretreatment standards for new sources.

Subpart AR—Lead Monoxide Production Subcategory

415.443 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.444 Pretreatment standards for existing sources.

415.445 Standards of performance for new sources.

415.446 Pretreatment standards for new sources.

Subpart AS—Lithium Carbonate Production Subcategory

415.453 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.454 Pretreatment standards for existing sources.

415.455 Standards of performance for new sources.

415.456 Pretreatment standards for new sources.

Subpart AT—Manganese Sulfate Production Subcategory

415.463–415.466 [Reserved]

Subpart AU—Nickel Sulfate Production Subcategory

415.473 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.474 Pretreatment standards for existing sources.

415.475 Standards of performance for new sources.

415.476 Pretreatment standards for new sources.

Subpart AV—Strong Nitric Acid Production Subcategory

415.483–415.486 [Reserved]

Subpart AW—Oxygen and Nitrogen Production Subcategory

415.493 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

415.494 Pretreatment standards for existing sources.

415.495 Standards of performance for new sources.

415.496 Pretreatment standards for new sources.

Subpart AX—Potassium Chloride Production Subcategory

415.503 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Sec.
415.504 Pretreatment standards for existing sources.
415.505 Standards of performance for new sources.
415.506 Pretreatment standards for new sources.

Subpart AY—Potassium Iodide Production Subcategory

415.513 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
415.514 Pretreatment standards for existing sources.
415.515 Standards of performance for new sources.
415.516 Pretreatment standards for new sources.

Subpart AZ—Potassium Permanganate Production Subcategory

415.523–415.526 [Reserved]

Subpart BA—Silver Nitrate Production Subcategory

415.533 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
415.534 Pretreatment standards for existing sources.
415.535 Standards of performance for new sources.
415.536 Pretreatment standards for new sources.

Subpart BB—Sodium Bisulfite Production Subcategory

415.543–415.546 [Reserved]

Subpart BC—Sodium Fluoride Production Subcategory

415.553 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
415.554 Pretreatment standards for existing sources.
415.555 Standards of performance for new sources.
415.556 Pretreatment standards for new sources.

Subpart BD—Sodium Hydrosulfide Production Subcategory

415.563–415.566 [Reserved]

Subpart BE—Sodium Hydrosulfite Production Subcategory

415.573–415.576 [Reserved]

Subpart BF—Sodium Silicofluoride Production Subcategory

415.583 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
415.584 Pretreatment standards for existing sources.
415.585 Standards of performance for new sources.
415.586 Pretreatment standards for new sources.

Subpart BG—Sodium Thiosulfate Production Subcategory

415.593–415.596 [Reserved]

Subpart BH—Stannic Oxide Production Subcategory

415.603 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
415.604 Pretreatment standards for existing sources.
415.605 Standards of performance for new sources.
415.606 Pretreatment standards for new sources.

Subpart BI—Sulfur Dioxide Production Subcategory

415.613–416.616 [Reserved]

Subpart BJ—Zinc Oxide Production Subcategory

415.623–415.626 [Reserved]

Subpart BK—Zinc Sulfate Production Subcategory

415.633 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
415.634 Pretreatment standards for existing sources.
415.635 Standards of performance for new sources.
415.636 Pretreatment standards for new sources.

AUTHORITY: Secs. 301, 304 (b) and (c), 306 (b), 307 (b) and (c), Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316(b) and 1317 (b) and (c), 86 Stat. 816 et seq.; Pub. L. 92–500) (the Act).

Subpart W—Aluminum Fluoride Production Subcategory

§ 415.233 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Fluoride	0.068	0.034
TSS	0.052	0.026
Aluminum	0.034	0.017
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Fluoride	0.068	0.034
TSS	0.052	0.026
Aluminum	0.034	0.017
pH	Within the range 6.0 to 9.0.	

§ 415.234 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the aluminum fluoride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Aluminum	0.34	0.17
Fluoride	0.68	0.34
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Aluminum	0.34	0.17
Fluoride	0.68	0.34
TSS	No limitation	
pH	do	

§ 415.235 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Fluoride	0.068	0.034
TSS	0.052	0.026
Aluminum	0.034	0.017
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Fluoride	0.068	0.034
TSS	0.052	0.026
Aluminum	0.034	0.017
pH	Within the range 6.0 to 9.0.	

§ 415.236 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the aluminum fluoride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that,

for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Aluminum	0.034	0.017
Fluoride	0.068	0.034
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Aluminum	0.034	0.017
Fluoride	0.068	0.034
TSS	No limitation	
pH	do	

Subpart X—Ammonium Chloride Production Subcategory

§ 415.243 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged in process waste water from ammonium chloride production by the reaction of anhydrous ammonia with hydrogen chloride gas and by the recovery process from Solvay process wastes, by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.244 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the ammonium chloride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this Chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from ammonium chloride production by the reaction of anhydrous ammonia with hydrogen chloride gas:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Ammonia (as N)	1.0	0.5
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Ammonia (as N)	1.0	0.5
pH	No limitation	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from ammonium chloride production by the recovery process from Solvay process wastes:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Ammonia (as N)	8.8	4.4
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Ammonia (as N)	8.8	4.4
pH	No limitation	

§ 415.245 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.246 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the ammonium chloride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Ammonia (as N)	1.0	0.5
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Ammonia (as N)	1.0	0.5
pH	No limitation	

Subpart Y—Ammonium Hydroxide Production Subcategory

§§ 415.253–415.256 [Reserved]

Subpart Z—Barium Carbonate Production Subcategory

§§ 415.263–415.266 [Reserved]

Subpart AA—Borax Production Subcategory

§ 415.273 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

§ 415.274 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the borax production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart, except that residual brine

and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Boron (as B)	1 mg/l.
Arsenic as (As)	Do.

§ 415.275 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn.

§ 415.276 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the borax production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new sources subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters, shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Boron (as B)	1 mg/l.
Arsenic (as As)	Do.

Subpart AB—Boric Acid Production Subcategory

§ 415.283 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from borax produced by the Trona process: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from ore-mined borax:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Arsenic	0.0028	0.0014
TSS	0.056	0.028
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Arsenic	0.0028	0.0014
TSS	0.056	0.028
pH	Within the range 6.0 to 9.0.	

§ 415.284 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the boric acid production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from borax produced by the Trona process, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
Tss	No limitation.
Arsenic (as As)	0.5 mg/l.
Boron (as B)	1 mg/l.
pH	No limitation.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from ore-mined borax:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Arsenic (as As)	0.0028	0.0014
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Arsenic (as As)	0.0028	0.0014
TSS	No limitation	
pH	do	

§ 415.285 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged in process waste water from boric acid production from borax produced by the Trona process: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn.

(b) The following limitations establish the quantity or quality of pollutants or pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from ore-mined borax:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Arsenic (as As)	0.0028	0.0014
TSS	0.056	0.028
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Arsenic (as As)	0.0028	0.0014
TSS	0.056	0.028
pH	Within the range 6.0 to 9.0.	

§ 415.286 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the boric acid production sub-

category which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality or pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from borax produced by the Trona process, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
Arsenic (as As)	0.5 mg/l.
Boron (as B)	1 mg/l.
pH	No limitation.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from boric acid production from ore mined-borax:

Pollutant or pollutant property	Pretreatment standard	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Arsenic (as As)	0.0028	0.0014
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Arsenic (as As)	0.0028	0.0014
TSS	No limitation	
pH	do	

Subpart AC—Bromine Production Subcategory

§ 415.293 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

§ 415.294 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the bromine production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Free Bromine (molecular)	0.1 mg/l.

§ 415.295 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn.

§ 415.296 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the bromine production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Free Bromine (molecular)	0.1 mg/l.

Subpart AD—Calcium Carbonate Production Subcategory

§ 415.303 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from calcium carbonate production by the milk of lime process:

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.22	0.11
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.22	0.11
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from calcium carbonate production by the recovery process from Solvay process wastes:

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.46	0.23
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.46	0.23
pH	Within the range 6.0 to 9.0.	

§ 415.304 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the calcium carbonate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

§ 415.305 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from calcium carbonate production by the milk of lime process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.22	0.11
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.22	0.11
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from calcium carbonate production by the recovery process from Solvay process wastes:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.46	0.23
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.46	0.23
pH	Within the range 6.0 to 9.0.	

§ 415.306 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the calcium carbonate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

Subpart AE—Calcium Hydroxide Production Subcategory

§ 415.313 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.314 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the calcium hydroxide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

§ 415.315 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.316 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the calcium hydroxide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

Subpart AF—Carbon Dioxide Production Subcategory

§§ 415.323–415.326 [Reserved]

Subpart AG—Carbon Monoxide and By-Product Hydrogen Production Subcategory

§ 415.333 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this sec-

tion, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
COD	0.13	0.065
TSS	0.034	0.017
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
COD	0.13	0.065
TSS	0.034	0.017
pH	Within the range 6.0 to 9.0.	

§ 415.334 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the carbon monoxide and by-product hydrogen production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
BOD5	No limitation	
COD	0.5	0.25
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
BOD5	No limitation	
COD	0.5	0.25
TSS	No limitation	
pH	do	

§ 415.335 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
COD	0.13	0.065
TSS	0.034	0.017
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
COD	0.13	0.065
TSS	0.034	0.017
pH	Within the range 6.0 to 9.0.	

§ 415.336 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the carbon monoxide and by-product hydrogen production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
BOD5	No limitation	
COD	0.25	0.125
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
BOD5	No limitation	
COD	0.25	0.125
TSS	No limitation	
pH	do	

Subpart AH—Chrome Pigments Production Subcategory

§ 415.343 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.99	0.33
Chromium (T)	0.051	0.017
Chromium (6+)	0.0051	0.0017
Lead	0.099	0.033
Zinc A	0.20	0.067
Cyanide A	0.0051	0.0017
Cyanide	0.051	0.017
Iron	0.20	0.067
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.99	0.33
Chromium (T)	0.051	0.017
Chromium (6+)	0.0051	0.0017
Lead	0.099	0.033
Zinc A	0.20	0.067
Cyanide A	0.0051	0.0017
Cyanide	0.051	0.017
Iron	0.20	0.067
pH	Within the range 6.0 to 9.0.	

§ 415.344 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the chrome pigments production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Chromium (T)	0.10	0.034
Chromium (6+)	0.010	0.0034
Lead	0.42	0.14
Zinc A	0.72	0.27
Cyanide A	0.010	0.0034
Cyanide	0.10	0.034
Iron	0.72	0.27
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Chromium (T)	0.10	0.034
Chromium (6+)	0.010	0.0034
Lead	0.42	0.14
Zinc A	0.72	0.27
Cyanide A	0.010	0.0034
Cyanide	0.10	0.034
Iron	0.72	0.27
pH	No limitation	

§ 415.345 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.99	0.33
Chromium (T)	0.051	0.017
Chromium (6+)	0.0051	0.0017
Lead	0.099	0.033
Zinc A	0.20	0.067
Cyanide A	0.0051	0.0017
Cyanide	0.051	0.017
Iron	0.20	0.067
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.99	0.33
Chromium (T)	0.051	0.017
Chromium (6+)	0.0051	0.0017
Lead	0.099	0.033
Zinc A	0.20	0.067
Cyanide A	0.0051	0.0017
Cyanide	0.051	0.017
Iron	0.20	0.067
pH	Within the range 6.0 to 9.0.	

§ 415.346 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the chrome pigments production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Chromium (T)	0.051	0.017
Chromium (6+)	0.0051	0.0017
Lead	0.099	0.033
Zinc A	0.20	0.067
Cyanide A	0.0051	0.0017
Cyanide	0.051	0.017
Iron	0.20	0.067
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Chromium (T)	0.051	0.017
Chromium (6+)	0.0051	0.0017
Lead	0.099	0.033
Zinc A	0.20	0.067
Cyanide A	0.0051	0.0017
Cyanide	0.051	0.017
Iron	0.20	0.067
pH	No limitation	

Subpart AI—Chromic Acid Production Subcategory

§ 415.353 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters, except as provided for in 40 CFR § 415.172 (39 FR 9631).

§ 415.354 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the chromic acid production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Total Chromium	0.5 mg/l.

§ 415.355 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters, except as provided for in this Part 415 (39 FR 9631), § 415.175 for sodium dichromate.

§ 415.356 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the chromic acid production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Total Chromium	0.5 mg/l.

Subpart AJ—Copper Sulfate Production Subcategory

§ 415.363 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart which may be discharged in process waste water from copper sulfate production from pure raw materials and by the recovery process after application of the best available technology economically achievable:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production using pure raw materials:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Copper	0.0006	0.0002
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Copper	0.0006	0.0002
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production by the recovery process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.014	0.0046
Copper	0.0014	0.00046
Nickel	0.0014	0.00046
Selenium	0.00069	0.00023
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.014	0.0046
Copper	0.0014	0.00046
Nickel	0.0014	0.00046
Selenium	0.00069	0.00023
pH	Within the range 6.0 to 9.0.	

§ 415.364 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the copper sulfate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owner treatment works by a point source subject to the provisions of this subpart.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production using pure raw materials:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Copper	0.0006	0.0002
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Copper	0.0006	0.0002
pH	No limitation	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production by the recovery process:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Copper	0.003	0.001
Nickel	0.006	0.002
Selenium	0.0015	0.0005
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Copper	0.003	0.001
Nickel	0.006	0.002
Selenium	0.0015	0.0005
pH	No limitation	

§ 415.365 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production using pure raw materials:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Copper	0.0006	0.0002
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Copper	0.0006	0.0002
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production by the recovery process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.014	0.0046
Copper	0.0014	0.00046
Nickel	0.0014	0.00046
Selenium	0.00069	0.00023
pH	Within the range 6.0 to 9.0.	
(English units) lb/1000 lb of product		
TSS	0.014	0.0046
Copper	0.0014	0.00046
Nickel	0.0014	0.00046
Selenium	0.00069	0.00023
pH	Within the range 6.0 to 9.0.	

§ 415.366 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the copper sulfate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purposes of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production using pure raw materials:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Copper	0.0006	0.0002
pH	No limitation	

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(English units) lb/1,000 lb of product		
TSS	No imitation	
Copper	0.00306	0.0002
pH	No limitation	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from copper sulfate production by the recovery process:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Copper	0.0014	0.00046
Nickel	0.0014	0.00046
Selenium	0.00069	0.00023
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Copper	0.0014	0.00046
Nickel	0.0014	0.00046
Selenium	0.00069	0.00023
pH	No limitation	

Subpart AK—Cuprous Oxide Production Subcategory

§§ 415.373–415.376 [Reserved]

Subpart AL—Ferric Chloride Production Subcategory

§ 415.383 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.384 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the ferric chloride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Iron	4 mg/l.

§ 415.385 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.386 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the ferric chloride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Iron	4 mg/l.

Subpart AM—Ferrous Sulfate Production Subcategory

§§ 415.393–415.396 [Reserved]

Subpart AN—Fluorine Production Subcategory

§ 415.403 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged in the process waste water from fluorine production by the liquid hydrofluoric acid electrolysis process by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.404 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the fluorine production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Flouride	20 mg/l.

§ 415.405 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.406 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the fluorine production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Fluoride	20 mg/l.

Subpart AO—Hydrogen Production Subcategory

§ 415.413 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters, except as provided for in Part 419 of this chapter (39 FR 16560).

§ 415.414 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the hydrogen production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this Chapter (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this Chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this Chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment Standard*
BOD5	No limitation.
TSS	Do.
pH	Do.
Oil and grease	100 mg/l.

§ 415.415 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters, except as provided for in this Chapter (39 FR 16560), Part 419 for petroleum refining.

§ 415.416 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the hydrogen production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 in this Chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
BOD5	No limitation.
TSS	Do.
pH	Do.
Oil and grease	100 mg/l.

Subpart AP—Hydrogen Cyanide Production Subcategory

§ 415.423 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production as a by-product of acrylonitrile manufacture: There shall be no discharge of process waste water pollutants to navigable waters, except as provided for in this chapter, Part 414, Subcategory F, paragraph § 414.63 for acrylonitrile.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production by the Andrussow process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.090	0.045
Cyanide	0.0046	0.0023
Cyanide A	0.00046	0.00023
BOD5	0.19	0.095
Ammonia (as N)	0.032	0.016
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.090	0.045
Cyanide	0.0046	0.0023
Cyanide A	0.00046	0.00023
BOD5	0.19	0.095
Ammonia (as N)	0.032	0.016
pH	Within the range 6.0 to 9.0.	

§ 415.424 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the hydrogen cyanide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production as a byproduct of acrylonitrile production:

Pollutant or pollutant property:	*Pretreatment standard*
BOD5	No limitation
TSS	Do.
pH	Do.
Cyanide	0.5 mg/l.
Cyanide A	0.05 mg/l.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production by the Andrussow process:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive day shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Cyanide	0.05	0.025
Cyanide A	0.005	0.0025
BOD5	No limitation	
Ammonia (as N)	0.35	0.18
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Cyanide	0.05	0.025
Cyanide A	0.005	0.0025
BOD5	No limitation	
Ammonia (as N)	0.35	0.18
pH	No limitation	

§ 415.425 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production as a byproduct of acrylonitrile manufacture:

There shall be no discharge of process waste water pollutants to navigable waters, except as provided for in 40 CFR Part 414, Subcategory F, § 414.65 of this chapter for acrylonitrile.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production by the Andrussow process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.090	0.045
Cyanide	0.0046	0.0023
Cyanide A	0.00046	0.00023
BOD5	0.19	0.096
Ammonia (as N)	0.032	0.016
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.090	0.045
Cyanide	0.0046	0.0023
Cyanide A	0.00046	0.00023
BOD5	0.19	0.096
Ammonia (as N)	0.032	0.016
pH	Within the range 6.0 to 9.0.	

§ 415.426 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the hydrogen cyanide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production as a by-product of acrylonitrile manufacture:

Pollutant or pollutant property:	*Pretreatment standard*
BOD5	No limitation.
TSS	Do.
pH	Do.
Cyanide	0.5 mg/l.
Cyanide A	0.05 mg/l.
Ammonia (as N)	30 mg/l.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen cyanide production by the Andrussow process:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Cyanide	0.0046	0.0023
Cyanide A	0.00046	0.00023
BOD5	No limitation	
Ammonia (as N)	0.032	0.016
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Cyanide	0.0046	0.0023
Cyanide A	0.00046	0.00023
BOD5	No limitation	
Ammonia (as N)	0.032	0.016
pH	No limitation	

Subpart AQ—Iodine Production Subcategory

§ 415.433 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant, properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.434 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the iodine production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

§ 415.435 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant propetries, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.436 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the iodine production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this Chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

Subpart AR—Lead Monoxide Production Subcategory

§ 415.443 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.444 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the lead monoxide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which woud be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties con-

trolled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Lead	0.030	0.015
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Lead	0.030	0.015
pH	No limitation	

§ 415.445 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.446 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the lead monoxide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Lead	0.030	0.015
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Lead	0.030	0.015
pH	No limitation	

Subpart AS—Lithium Carbonate Production Subcategory

§ 415.453 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production by the Trona process: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production from spodumene ore:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	1.1	0.36
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	1.1	0.36
pH	Within the range 6.0 to 9.0.	

§ 415.454 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the lithium carbonate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production by the Trona process, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production from spodumene ore:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

§ 415.455 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production by the Trona process: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production from spodumene ore:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	1.1	0.36
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	1.1	0.36
pH	Within the range 6.0 to 9.0.	

§ 415.456 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the lithium carbonate production subcategory which is a user of a publicly

owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production by the Trona process, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from lithium carbonate production from spodumene ore:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

Subpart AT—Manganese Sulfate Production Subcategory

§§ 415.463–415.466 [Reserved]

Subpart AU—Nickel Sulfate Production Subcategory

§ 415.473 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged in process waste water from nickel sulfate production from pure and impure raw materials by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from pure raw materials: There shall be no discharge of process waste water pollutants to navigable waters.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from impure raw materials:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Nickel	0.006	0.002
TSS	0.036	0.012
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Nickel	0.006	0.002
TSS	0.036	0.012
pH	Within the range 6.0 to 9.0.	

§ 415.474 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the nickel sulfate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standards establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from pure raw materials:

Pollutant or pollutant property:	*Pretreatment standard*
Nickel	2 mg/l.
TSS	No limitation.
pH	Do.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from impure raw materials:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Nickel	0.006	0.002
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Nickel	0.006	0.002
TSS	No limitation	
pH	do	

§ 415.475 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from pure raw materials: There shall be no discharge of process waste water pollutants to navigable waters.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from impure raw materials:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Nickel	0.006	0.002
TSS	0.036	0.012
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Nickel	0.006	0.002
TSS	0.036	0.012
pH	Within the range 6.0 to 9.0.	

§ 415.476 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the nickel sulfate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from nickel sulfate production from pure raw materials:

Pollutant or pollutant property:	*Pretreatment standard*
Nickel	2 mg/l.
TSS	No limitation.
pH	Do.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph which may be discharged in process waste water from nickel sulfate production from impure raw materials:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Nickel	0.006	0.002
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Nickel	0.006	0.002
TSS	No limitation	
pH	do	

Subpart AV—Strong Nitric Acid Production Subcategory

§§ 415.483–415.486 [Reserved]

Subpart AW—Oxygen and Nitrogen Production Subcategory

§ 415.493 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Oil and grease	0.002	0.001
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Oil and grease	0.002	0.001
pH	Within the range 6.0 to 9.0.	

§ 415.494 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the oxygen and nitrogen production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment Standard*
BOD5	No limitation.
TSS	Do.
pH	Do.
Oil and grease	100 mg/l.

§ 415.495 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Oil and grease	0.002	0.001
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Oil and grease	0.002	0.001
pH	Within the range 6.0 to 9.0.	

§ 415.496 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the oxygen and nitrogen production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
BOD5	No limitation.
TSS	Do.
pH	Do.
Oil and grease	100 mg/l.

Subpart AX—Potassium Chloride Production Subcategory

§ 415.503 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine solution was originally withdrawn.

§ 415.504 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the potassium chloride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

§ 415.505 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn.

§ 415.506 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the potassium chloride production subcategory which is a user of a publicly owned treatment works and a major con-

tributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart, except that residual brine and depleted liquor may be returned to the body of water from which the process brine was originally withdrawn:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.

Subpart AY—Potassium Iodide Production Subcategory

§ 415.513 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.042	0.014
Barium	0.0069	0.0023
Iron	0.011	0.0036
Sulfide	0.011	0.0036
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.042	0.014
Barium	0.0069	0.0023
Iron	0.011	0.0036
Sulfide	0.011	0.0036
pH	Within the range 6.0 to 9.0.	

§ 415.514 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the potassium iodide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Sulfide	0.015	0.005
Iron	0.015	0.005
Barium	0.009	0.003
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Sulfide	0.015	0.005
Iron	0.015	0.005
Barium	0.009	0.003
pH	No limitation	

§ 415.515 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	0.042	0.014
Sulfide	0.0069	0.0036
Iron	0.0069	0.0036
Barium	0.011	0.0023
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
TSS	0.042	0.014
Sulfide	0.0069	0.0036
Iron	0.0069	0.0036
Barium	0.011	0.0023
pH	Within the range 6.0 to 9.0.	

§ 415.516 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the potassium iodide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
TSS	No limitation	
Sulfide	0.0069	0.0036
Iron	0.0069	0.0036
Barium	0.011	0.0023
pH	No limitation	
(English units) lb/1,000 lb of product		
TSS	No limitation	
Sulfide	0.0069	0.0036
Iron	0.0069	0.0036
Barium	0.011	0.0023
pH	No limitation	

Subpart AZ—Potassium Permanganate Production Subcategory

§§ 415.523–415.526 [Reserved]

Subpart BA—Silver Nitrate Production Subcategory

§ 415.533 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Silver	0.0045	0.0015
TSS	0.069	0.023
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Silver	0.0045	0.0015
TSS	0.069	0.023
pH	Within the range 6.0 to 9.0.	

§ 415.534 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the silver nitrate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to

the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Silver	0.009	0.003
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Silver	0.009	0.003
TSS	No limitation	
pH	do	

§ 415.535 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Silver	0.0045	0.0015
TSS	0.069	0.023
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Silver	0.0045	0.0015
TSS	0.069	0.023
pH	Within the range 6.0 to 9.0.	

§ 415.536 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the silver nitrate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Silver	0.0045	0.0015
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Silver	0.0045	0.0015
TSS	No limitation	
pH	do	

Subpart BB—Sodium Bisulfite Production Subcategory

§§ 415.543–415.546 [Reserved]

Subpart BC—Sodium Fluoride Production Subcategory

§ 415.553 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.554 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the sodium fluoride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TTS	No limitation.
pH	Do.
Fluoride	20 mg/l.

§ 415.555 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.556 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the sodium fluoride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Fluoride	20 mg/l.

Subpart BD—Sodium Hydrosulfide Production Subcategory

§§ 415.563–415.566 [Reserved]

Subpart BE—Sodium Hydrosulfite Production Subcategory

§§ 415.573–415.576 [Reserved]

Subpart BF—Sodium Silicofluoride Production Subcategory

§ 415.583 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Fluoride	0.50	0.25
TSS	0.38	0.19
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Fluoride	0.50	0.25
TSS	0.38	0.19
pH	Within the range 6.0 to 9.0.	

§ 415.584 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the sodium silicofluoride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treat- the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Fluoride	0.5	0.25
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Fluoride	0.5	0.25
TSS	No limitation	
pH	do	

§ 415.585 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any one day	Effluent limitations: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Fluoride	0.50	0.25
TSS	0.38	0.19
pH	Within the range 6.0 to 9.0.	
(English units) lb/1,000 lb of product		
Fluoride	0.50	0.25
TSS	0.38	0.19
pH	Within the range 6.0 to 9.0.	

§ 415.586 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the sodium silicofluoride production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard: Maximum for any one day	Pretreatment standard: Average of daily values for thirty consecutive days shall not exceed—
(Metric units) kg/kkg of product		
Fluoride	0.5	0.25
TSS	No limitation	
pH	do	
(English units) lb/1,000 lb of product		
Fluoride	0.5	0.25
TSS	No limitation	
pH	do	

Subpart BG—Sodium Thiosulfate Production Subcategory

§§ 415.593–415.596 [Reserved]

Subpart BH—Stannic Oxide Production Subcategory

§ 415.603 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.604 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the stannic oxide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart:

Pollutant or pollutant property, maximum for any one day:	*Pretreatment standard, average of daily values for thirty consecutive days shall not exceed—*
(Metric units) kg/kkg of product:	
TSS	No limitation.
pH	Do.
English units) lb/1000 lb of product:	
TSS	No limitation.
pH	Do.

§ 415.605 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.606 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the stannic oxide production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR Part 128, for existing sources, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following

pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property, maximum for any one day:	*Pretreatment standard, average of daily values for thirty consecutive days shall not exceed—*
(Metric units) kg/kkg of product:	
TSS	No limitation.
pH	Do.
(English units) lb/1000 lb. of product:	
TSS	No limitation.
pH	Do.

Subpart BI—Sulfur Dioxide Production Subcategory

§§ 415.613–415.616 [Reserved]

Subpart BJ—Zinc Oxide Production Subcategory

§§ 415.623–415.626 [Reserved]

Subpart BK—Zinc Sulfate Production Subcategory

§ 415.633 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.634 Pretreatment standard for existing sources.

The pretreatment standard under section 307(b) of the Act for a source within the zinc sulfate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132 and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Cadmium	1 mg/l.
Lead	Do.
Zinc	Do.

§ 415.635 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 415.636 Pretreatment standard for new sources.

The pretreatment standard under section 307(c) of the Act for a new source within the zinc sulfate production subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR 128 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in 40 CFR 128, for existing sources, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132 and 128.133 shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
TSS	No limitation.
pH	Do.
Cadmium	1 mg/l.
Lead	Do.
Zinc	Do.

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